CONSTRUCTION NEWS

Supplement to ENGINEERING NEWS. New York, May 5, 1910.

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RAILWAYS.

(denotes that this work is advertised in Engineering News.)*

ANADARKO & WESTERN.—Chartered in Oklahoma, with $50,000 capital, to build a 50-mile line through Caddo County, Okla., at a cost of $1,000,000. It is proposed to construct a line from near Alden through Anadarko to a point near the Caddo-Grady county line. The incorporators are all Anadarko capitalists, including C. H. Deford, G. D. Driskell, L. M. Swivey and W. F. McCracken.

ATLANTIC NORTHERN.—See Cheat River & Monongahela Valley R. R.

BOSTON & ALBANY.—Improvements are planned for the current year to cost $1,971,700, according to press reports. A new station and elimination of grade crossings in Worcester, Mass., will call for $400,000. New automatic block signals will cost $193,000, and the interlocking signals $138,000. Thousands of dollars will be expended in enlargement of freight yards at East Cambridge, Natick, South Bramingham and Westfield, the proceeds from the sale of $2,000,000 25-year 4 per cent. bonds, approval of which has not yet been obtained from the railroad commission, will be used toward the cost of these improvements. F. B. Freeman is Ch. Engr., Boston.

BOWDON RY.—Officers have been elected as follows: Pres. J. L. Lovvorn, of Boston, Ga.; Vice-Pres., J. M. Terrell, of Atlanta, Ga.; Treas., A. E. Fleming; George B. Harris is Ch. Engr, Bowdon. This line will run from Bowdon via Burwell and Mount Zion to a point on the Central of Georgia Ry. or on the Southern Railway, a distance of from 12 to 18 miles, as noted on April 21.

CHEAT RIVER & MONONGAHELA VALLEY.—The stockholders of the Cheat River & Monongahela Valley R. R. Co. and of the Atlantic Northern R. R. Co. met at Kingwood, W. Va., recently and perfected their respective organizations with Neil J. Fortney, Pres.; E. M. Lantz, Vice-Pres. and Treas.; W. S. Downs, Secy., and Julius K. Monroe, Gen. Mgr. of the first named company, and James W. Flynn, Pres.; William M. Schaeffer, Vice-Pres.; E. M. Lantz, Treas.; W. S. Downs, Secy., and Julius K. Monroe, Gen. Mgr. of the second. The line of the Cheat River & Monongahela Valley R. R. will run from Albright, W. Va., on Cheat River, following down the general course of the river, crossing the Monongahela River at a point below Point Marion to a point in Pennsylvania not yet definitely decided upon. The line of the Atlantic Northern R. R. will run from Rowlesburg, W. Va., following up the general course of Cheat River, intersecting the Western Maryland R. R. at Parsons, W. Va. These roads will pass through large sections of country now undeveloped, but rich in timber, coal and other minerals. Noted on March 3.

COEUR D'ALENE & PEND D'OREILLE.—Austin Corbin, Vice-Pres., and Geo. H. Martin, G. P. A., of the Spokane International Ry., Spokane, Wash., and others, have incorporated the Coeur d'Alene & Pend d'Oreille Ry. Co., in the state of Washington, with $600,000 capital and office at Spokane, Wash. The company plans to build from the Spokane International Ry. near section 23, township 51, range five, west; southeasterly to Coeur d'Alene Lake and another line from section 23, township 58, range three, west, 15 miles to Pend d'Oreille Lake, also other branches and extensions in Idaho, Montana and Washington.

DENVER & RIO GRANDE.—Double tracking is planned between Castle Gate and Kyune, Utah, nine miles. J. G. Gwyn is Ch. Engr., Denver.

GILMORE & PITTSBURG.—W. A. McCutcheon, Pres., Machesney Bldg., Pittsburg, Pa., advises us that "we have been engaged making some surveys from Salmon City west through the valley of the Salmon River, and we have also surveyed south on the Salmon River about 60 miles to Challis. This work has been done as a part of a plan to intelligently examine the country surrounding us, but for the time being we do not contemplate the building of any extensions in either of these directions." As previously noted contract for building 120 miles of this railroad was let about a year ago to MACARTHUR BROS., Fisher Bldg., Chicago, and 11 Pine St., New York. The contract calls for an expenditure of over $3,000,000. The section contracted for extends from Armstead, Mont., to Salmon City, Idaho. There is to be a 700-ft. tunnel. T. H. Bacon, Machesney Bldg., Pittsburg, Pa., is Ch. Engr. Noted on Jan 28 and March 25, 1909.

GULF COAST & PROVIDENT CITY.—The Railroad Commission of Texas has authorized this company to issue bonds to pay for the first 31 miles of line north from Pierce, Tex., on the Southern Pacific Ry. As officially noted on April 14, contract has been awarded to C. L. DWYER, Houston, Tex., for building this railway from Pierce, Tex., to Provident City and Hallettsville, 60 miles. Surveys are made and right-of-way obtained. Emil Reinbold is Pres., Kansas City; Carey Shaw is Vice-Pres., Houston, Tex.; Schlafli & Porter are Engrs., Houston. Fully noted on Jan. 27. Grading is to be started in June on a line from Pierce, north to a connection with an east and west line to be built from Glenflora on the Gulf, Colorado & Santa Fe Ry., west to Provident City.

KANSAS CITY, MEXICO & ORIENT.—It is announced that the construction of the branch line that is to run from San Angelo to Del Rio, on the Rio Grande border, will be started before June 1. The purchase of $150,000 of bonds of the proposed line has been guaranteed by citizens of Del Rio. As noted officially on March 10, contract has been let to ROACH & STANSELL, of Memphis, Tenn., for building a 45-mile section between San Angelo and Eldorado, on the proposed extension to be built from San Angelo to Del Rio, Tex., via Eldorado, a total of 170 miles. Noted on March 31.

MINNEAPOLIS, ST. PAUL & SAULT STE. MARIE.—Contract has been awarded to FOLEY, WELCH & STEWART, St. Paul, Minn., for building a branch from Medford, N. Dak., west to Drake, about 135 miles.

Contract has been awarded to FRED. A. BAXTER, Superior, Wis., for grading the ore line and the yards between Mayline, south of Superior, and the dock site on St. Louis Bay. Estimated cost, $50,000.

MUSCATINE NORTH & SOUTH RY.—An extension from Muscatine to Burlington, Iowa, is contemplated. Chas. Howard is Pres. and Gen. Mgr., Muscatine, Iowa.

NEW ORLEANS, MOBILE & CHICAGO.—We are officially advised that the construction of the extension of the Pontotoc Spur, at Pontotoc, Miss., to a connecting point south, with the present main line of this railroad, is now under way. The extension is 2.77 miles long and includes about 250,000 cu. yds. of excavation. The C. G. KERSHAW CONTRACTING CO., of Talladega, Ala., has the contract for grading, etc. L. W. Duffee is Resident Engr., New Albany, Miss.

PALACIOS, SAN ANTONIO & PECOS VALLEY.—Company has been organized with election of officers as follows: J. P. Pierce, Pres.; H. W. Dean, Secy., and T. H. Bonner, Treas. It is planned by the company to build a railroad from Palacios to Pecos, Tex., about 450 miles. It will run via San Antonio, which will probably be made the headquarters. Right-of-way and bonuses are now being secured.

ST. LOUIS, IRON MOUNTAIN & SOUTHERN.—The directors have approved the expenditure of $750,000 on double track work on the Arkansas division to the north of Little Rock, and work will start on it soon. The southern end of the double track will be at a point just south of Jacksonville, 14 miles north of Little Rock, and this stretch will extend to Bald Knob, a distance of 47 miles. This will give a complete double track from Cypress Junction to the south of Little Rock, to the Memphis division junction point with the main line. In addition to this additional track will be laid from the White River bridge just south of Newport to Diaz, where the White River division joins the Arkansas division, a distance of 4.7 miles. The estimated cost of this work is $15,000 per mile, or $770,000 for the entire undertaking.

Press reports state that contracts have been let as follows: Ball & Peters, of Little Rock, Ark., for the work from Poplar Bluff to Harviell, Mo., and from Diaz to the White River south of Newport, distance of 14 miles. The WALSH CONSTRUCTION CO., of St. Louis, was awarded the contract for the work from Bald Knob to McAlmont, a distance of 46 miles. The first contract will amount to $150,000, and the other contract will amount to about $300,000.

SOUTHERN PACIFIC.—Alexander V. Dye, U. S. Consul at Nogales, Mexico, notes a change in the concession of the Southern Pacific Ry. Co. of Mexico relative to the line from Nacozari, Sonora. The company must finish 37 miles of the branch by June 11, 1911, and 12½ miles each year thereafter, completing the entire branch by June 11, 1914. The Consul adds: This line as surveyed runs almost due south from Nacozari about 130 miles to meet the branch coming up from Corral, Chihuahua, and which was recently completed as far as Tonichi. During the last two years about 24 miles of this road has been graded south from Nacozari through very rough country.

SPOKANE INTERNATIONAL.—See Coeur d'Alene & Pend d'Oreille, Ry.

TEMPLE NORTHWESTERN. — Contracts have been awarded to C. M. McCONNICO and to J. S. MOORE, both of Lufkin, Tex., for grading work from Temple northwest to Hamilton, about 65 miles, according to the Galveston "News." The work is to be started at once. W. J. McDaniel is Pres., and W. E. Dozier is Engr., Temple, Tex. Noted on March 31.

Contract for bridge work on the Temple Northwestern Ry. has been awarded to C. G. PATTON, of Houston. The piling to be used between Temple and the Leon River will be supplied by W. D. PARISH, of Temple.

ARGENTINA.—R. M. Bartleman, U. S. Consul General at Buenos Aires, furnishes the following information concerning the activity of European capitalists in railway building in Argentina and the changes in railway control to result: "Argentina is annually building more miles of railway than any other South American country. The Rosario-Puerto Belgrano Ry., which crosses the Province of Buenos Aires and connects two growing trade centers, will undoubtedly be a profitable and important line, and its success will entail the investment of more and more French capital. Various rumors of German lines have beeen circulated, and it is not at all improbable that some of them will be built within the next five years. While the English lines have a commanding position at present, the next 15 years will undoubtedly bring about considerable changes in their proportion of railway mileage and the consequent relative decline of their influence, as the French and other Continental capitalists are fully awake to the profits to be obtained from railways in the largest Spanish-speaking South American Republic.

"The prospective opening of the Transcontinental Railway, connecting Valparaiso and Buenos Aires, will undoubtedly stimulate competition to the extent of building a rival line within the next five years, which will result in greater annual increases in the mileage of Argentine railways." [The Railway Statistics of Argentina for 1908, with a railway map corrected up to Jan. 1, 1910, accompanied the Consul General's report, and is on file in the Bureau of Manufactures, Dept. of Commerce and Labor, Washington, D. C.]

HAITI.—We are officially advised that J. P. McDonald, 42 Broadway, New York, has a contract with the Haytian Government to build a railway in Haiti.

ELECTRIC RAILWAYS.

PORTLAND, ME.—The Portland, Gray & Lewiston R. R. Co. has awarded to FRED T. LEY & CO., Inc., Springfield, Mass., contracts for concrete work for eight bridges varying from 20 ft. to 100 ft. in length and abutments for two steel girder bridges and a number of culverts, it is stated. Noted fully last week.

BOLIVAR, N. Y.—We are officially informed that the Southwestern New York Traction Co., recently incorporated, will let construction contracts this summer. The line will be about 15 miles long and will connect Bolivar and Wellsville. C. M. Van Curen is Pres.; A. J. Matson is Secy., Bolivar, N. Y. Noted fully on April 14.

ALTOONA, PA.—We are officially advised that the Johnstown & Altoona Ry. Co. will let contracts after June 15 for the construction of its line from South Fork, Pa., to Altoona, 33 miles. Right-of-way and capital have been secured and surveys made. Wallace Sherbine is Pres., Geo. U. G. Holman is Gen. Mgr., and Herbert F. Pierce is Ch. Engr., Suppes Bldg., Johnstown, Pa. Noted on April 21.

PHILADELPHIA, PA.—Stockholders of the Rapid Transit Co. will be asked at a special meeting on June 20 to confer authority upon the management to borrow $5,000,000. One of the highest officials of the corporation, according to the Philadelphia "Public Ledger," has stated that it was not the intention of the management to increase the amount of the $2,500,000 loan which Councils had been asked to authorize, but merely to obtain a "blanket permission" from the stockholders and thus provide for contingencies, should they arise. It was explained further that since the stockholders would have to hold a special meeting to act upon the request to borrow $2,500,000, the management decided that it would be advisable to obtain the consent of that meeting to borrow more and thus prevent the possible necessity of calling another special meeting. Extensions, improvements and new equipment are to be provided. Walter Ellis, 2250 North Eighth St., is Gen. Supt.

BALTIMORE, MD.—The Baltimore & Pennsylvania Ry. Co., recently chartered by the Maryland Legislature, proposes to build an interurban electric railway connecting Baltimore with Hanover, Pa., and other points. Construction from a point near Baltimore will be commenced soon by the MARYLAND CONSTRUCTION & DEVELOPMENT CO., which has the contract. The work immediately proposed is from Baltimore to Hanover, 42 miles. Headquarters are at 1209 Calvert Bldg., Baltimore. J. Pierce Bruns, Pres., Baltimore, Md.; Jacob H. Sherman, Vice-Pres., Carroll County; Joseph P. Reynolds, Secy., Baltimore. The proposed line will run via Fowblesburg, Arcadia, Hampstead, Greenmount and Manchester, Md. Noted on Feb. 3.

CLARKSBURG, W. VA.—The Clarksburg & Weston Traction Co. has not made definite plans for letting contracts for construction on its proposed electric railway from Clarksburg to Weston, W. Va., 25 miles. Capital, $25,000. The officers are: F. B. Haymaker, Clarksburg, Pres.; W. G. Bennett, Weston, Vice-Pres.; W. M. Cornray, Secy. and Treas.; S. G. Munroe is Gen. Mgr., Clarksburg. Noted on April 7.

CYNTHIANA, KY.—The Cynthiana, Newport & Licking Valley Traction Co. has opened offices here preparatory to beginning construction of its line from Cynthiana to Paris and Newport, Ky., about 65 miles. W. S. Gray, Louisville, Ky., is Consult. Engr. Bids may be asked soon.

CLEVELAND, OHIO.—Expenditures by the Cleveland Ry. Co., aggregating more than $250,000, were provided by ordinances introduced in Council last week by Councilman Hitchens. Of the proposed improvements the largest amount was for the remodeling of 230 cars, which are to be made over into pay-as-you-enter at a cost of $196,468. Improvements on the Cedar and viaduct power-houses will aggregate $65,727; trackage drains will cost $2,825; a "Y" at St. Clair Ave. and Crosby St. will cost $78, and $3,200 will be spent for two lots in East 55th St. Commissioner Dahl sent a communication to Council, explaining that the surplus in March, revised, showed $19,855 instead of $18,881.

DOWAGIAC, MICH.—The Dowagiac Ry. Co. has let the contract for the clearing, grading and building of culverts of the line to BEAN & JONES, of Boston Harbor, Mich., and work is to begin at once on the line between Eau Claire and Dowagiac, ten miles.

JOLIET, ILL.—The Joliet & Southern Traction Co. will complete its city lines this summer. This announcement was made recently by F. E. Fisher, Gen. Mgr. Extensions will be built and general improvements made to cost about $200,000.

WILMINGTON, ILL.—The Illinois Light & Traction Co., of Streator, has been granted a 50-year franchise by the City Council to build an electric railway in Wilmington, with the proviso that within five years the company shall construct and have in operation an interurban railway between Wilmington and Kankakee. M. G. Neff is Ch. Engr., Streator.

WATERLOO, IOWA.—The directors of the Waterloo, Cedar Falls & Northern Ry. Co. are stated to have authorized the expenditure of $285,000 for improvements in Waterloo. The work will include the double-tracking of several lines in Waterloo and extensions may be built to Charles City, Mason City, New Hampton, Cedar Rapids and Marshalltown. Construction has begun on the new interurban railway to Waverly. The company was recently granted a franchise by the City Council of Waverly. C. D. Cass is Gen. Mgr., Waterloo. Noted on March 31.

THERMOPOLIS, WYO.—We are officially advised that the East Thermopolis Power Co. will let contracts about July 1 for building an electric railway in Thermopolis. Incorporators are H. P. Rothwell, Martin McGrath and Ira E. Jones, all of Thermopolis.

VIRGINIA CITY, MONT.—The directors of the Virginia City Southern Elec. Ry. Co. have authorized a bond issue of $200,000 and have elected the following officers: Karl Elling, Pres.; Luther H. Leher, Vice-Pres.; A. J. Bennett, Treas.; M. M. Duncan, Secy. Headquarters, Virginia City. Surveys have been made. Noted fully on April 21.

BEAUMONT, TEX.—J. D. Polk, of Beaumont, has filed with the City Secretary application for a franchise, to run for 50 years, for the use of certain streets and alleys in the city of Beaumont and the right to lay track and operate electric cars, and also application for franchise for the erection and operation of a plant to furnish light and power. The franchise for the street railway is desired in connection with a plan to build to Port Arthur.

AUSTIN, TEX.—C. V. Burkhead, representing San Antonio capitalists, James T. Priest and N. A. Dawson, of South Austin, and Frank M. Maddox have appeared before the Commissioners' Court in the interest of a proposed street railway for South Austin; also in connection with securing a franchise over the new concrete bridge over the Colorado River at Austin.

SUISUN, CAL.—The Town Trustees have granted a 50-year franchise to the Vallejo & Northern R. R. Co. of Vallejo, to construct an electric railway within the town limits. This franchise grants the same privileges given by a similar franchise to the company two years ago, which had recently expired. Work will be commenced within six months on this projected railway from Vallejo to Sacramento via Fairfield and Woodland, it is stated. T. T. C. Gregory is Pres., Fairfield, Cal. Noted on April 14, under Vacaville, Cal.

WOODLAND, CAL.—The Board of Trustees has granted the Vallejo & Northern R. R. Co. a franchise to construct a railway in Woodland. See item under Suisun, Cal.

LIGHT AND POWER PLANTS.

(denotes that this work is advertised in Engineering News.)*

VERNON, VT.—The Connecticut River Power Co. is planning to increase the output of its plant here and extend its transmission lines to Lowell and other large cities in Massachusetts. Rights of way have practically been secured from Lancaster to Lowell. The new line will extend from Lancaster to Shirley, Ayer, Forge Village, North Chelmsford, and from there to Lowell. H. I. Harriman is Pres., 50 Congress St., Boston, Mass.

IPSWICH, MASS.—The town has voted to appropriate $12,000 for extensions to the municipal electric light plant. It is proposed to extend the lighting system to Rowley and furnish electricity for lamps in that town.

SOMERSET, MASS.—The Fall River Electric Light Co. is planning to erect transmission lines for distributing electricity in Somerset for lamps. The street lighting system

will include about 140 incandescent lamps, at a cost of from $20 to $25 per lamp per year. Leslie R. Hicks is Elec. Engr., Fall River, Mass.

RED BANK, N. J.—The SHORE ELECTRIC CO. has accepted the proposition of the Borough Commissioners to erect arches in place of arc lamps, on each arc of which 15 tungsten lamps will be placed. The arches burning all night will cost $100 per year and those burning until midnight $65 each per year. Contract is for a term of five years, and 13 arches will be erected. H. P. Chandler is Secy., Red Bank.

NEW CASTLE, PA.—The New Castle Electric Co. has applied to the City Council for a renewal of its street lighting contract for a term of ten years, from Dec. 1, 1910. Under the contract submitted the price for arc lamps would be $75 per lamp per year for the first 200 lamps and $70 each for all additional lamps installed, and for lamps installed for the last three years of the contract $75 each per year. It also provides for the company using its present poles. The company contemplates the construction of a new plant here. J. P. Toler is Ch. Engr., New Castle.

BEAVER, PA.—The Beaver County Electric Light Co., lately incorporated, has applied to the Borough Council for a franchise to construct and operate an electric light and power plant here. Announcement has been made that a reduction will be made in the price of electricity, to take effect May 1, 1910, as follows: For the first 100 KW.-hours per month, 10 cts. per KW.-hour; from 100 to 200 KW., 9 cts; from 200 to 500 KW., 8 cts.; from 500 to 700 KW., 7 cts.; from 700 to 1,000 KW., 6 cts.; from 1,000 to 2,000 KW., 5 cts. A discount of 10% is allowed on all bills. The minimum rate will be reduced from $2 to $1 per month. Van Horn Ely is Pres.

JOHNSTOWN, PA.—The Southern Cambria Ry. Co. will award contracts soon for a 1,000-KW. unit including generators, engine and boilers for 1,200-volt direct-current operation. F. R. Newman of Johnstown, Pa., is Gen. Mgr.

BALTIMORE, MD.—We are officially advised that Wehr, Walden & Dukehart, Continental Bldg., Baltimore, have recently designed a concrete gravity dam to be constructed on the Patapsco River and are now ready to receive bids on the construction.

WASHINGTON, D. C.—Bids for purchasing surplus engines, generators, armatures, switchboards, steam boilers and pumps, hydraulic elevator machine, steel tanks, piping, fittings, valves, etc., will be received May 10. For instructions and complete list of articles for sale address Lieut.-Col. H. M. Kendall, U. S. A., Treas. U. S. Soldiers' Home, Washington.

ROANOKE, VA.—J. C. NESBITT, of Roanoke, has been awarded contract it is reported, for the erection of a power-house for the Norfolk & Western Ry., at $26,000.

FORT CASWELL (Southport post-office), N. C.—Bids will be received until 3 p. m., May 25, by Lieut. W. E. McCleary, Constructing Q. M., U. S. A., for furnishing and installing electric power plant and electric lighting system at Fort Caswell.

BEAUFORT, S. C.—Plans have been completed for the proposed new municipal electric light plant. Bids for construction will soon be asked.

GREENVILLE, S. C.—The Southern Power Co. has awarded to the WESTINGHOUSE ELECTRIC & MFG. CO., East Pittsburg, Pa., contract for the steam-power machinery installation necessary to equip two auxiliary plants of 10,000 HP. capacity each.

CHARLESTON, S. C.—Bids are asked by the Bureau of Yards and Docks, Navy Dept., Washington, D. C., until 11 a. m., June 11, for furnishing and installing piping, conduit, heaters, etc., in the yard and power plant, navy yard, Charleston.

ALBANY, GA.—The Albany Power & Mfg. Co. is preparing for the construction of an auxiliary steam-power plant on the Muckafoonee Creek, north of here, to have an output of about 1,000 HP. The machinery has been purchased. J. E. Sirrine, of Greenville, S. C., is preparing plans. Estimated cost, $50,000.

FORT DADE (Egmont post-office), FLA.—Bids will be received until May 20 by the Constructing Quartermaster, Fort Dade, for constructing an electric lighting system, consisting of inside and outside wiring, transformers, engines and generators and addition to power-house at Fort Dade.

RIVERSIDE, ALA.—The Riverside City Development Co. is planning to install electric light plant, water-works and sewerage systems.

SAINT BERNARD (Cincinnati post-office), OHIO.—Bids will be received until May 7 by the Board of Trustees of Public Affairs, William J. Voller, Clk., for furnishing electrical material for a direct current series street lighting equipment for the electric light plant.

COSHOCTON, OHIO.—The Coshocton Light & Heating Co. will soon start work on the 2,500-HP. power plant to be erected on the Walhounding River, a short distance from Coshocton. The building will be of reinforced concrete.

MOUNT VERNON, OHIO.—N. C. L. Kachelmacher, of the Mount Vernon Ry. & Light Co., has announced that work on the erection of a large power plant will be begun soon. The plant will have a capacity of 1,200 HP.

SEYMOUR, IND.—L. E. Layton and others of Kokomo, Ind., have secured franchises for an electric light and power plant here. Bids were opened on April 21. John Hauenschild is City Clk.

BEDFORD, IND.—The Esterline Co., of Lafayette, Ind., has been selected as consulting and supervising engineers of the Bedford Power Co., which proposes to construct a hydroelectric plant on South Fork of White River, near Williams, and to transmit several thousand horse-power to the stone district of Bedford. J. W. Easterline is Pres.

CARTHAGE, IND.—F. F. Brennen, who has recently purchased the Carthage Light, Heat and Power plant, will soon ask for bids for remodeling and improving the plant. He will also install some new machinery.

SCOTTSBURG, IND.—The Town Council has decided to install a municipal electric lighting system, and electricity for operating the system will be purchased from the Indianapolis & Louisville Traction Co. at 1,200 volts, direct-current at the rate of 3 cts. per KW.-hour. Series tungsten lamps will be used for street lighting. The town will erect the distributing system, lamps, etc.

GARY, IND.—Preparations are being made to construct a large electric power plant to supply electricity to the American Sheet & Tin Plate plant and the American Bridge Works. The building will be 550 ft. long by 100 ft. wide and will be equipped with gas engines. About 20,000 HP. will be developed.

INDIAÑAPOLIS, IND.—A million dollars will be spent this year in the erection and installation of a large new power plant for the Terre Haute, Indianapolis & Eastern Traction Co. here. The new power-house will be located in West Tenth St., just west of the Belt R. R., west of White River. This is the first development following the purchase by the Terre Haute, Indianapolis & Eastern Traction Co. of the Indianapolis Traction & Terminal Co., the latter company being the Indianapolis local street railway company. H. E. Smith is Ch. Engr., Terre Haute.

ROCKTON, ILL.—Chicago capitalists headed by Bradner, Smith & Co., 184 Monroe St., Chicago, will invest $1,000,000 in building a dam across the Rock River at Rockton, Ill., to develop power for electricity. It is estimated the plant will produce 2,000 HP.

CHICAGO, ILL.—The Northwestern Gas Light & Coke Co. has bought 20 acres in Niles Township and will build a $250,000 plant.

IRETON, IOWA.—Contracts have been placed by the Ireton Electric Light & Power Co. for complete equipment for an electric light plant to be installed here. The company is composed of local business men. It is expected to have the plant in operation about July 1.

WATERLOO, IOWA.—The directors of the Waterloo, Cedar Falls & Northern Ry. Co. have authorized an expenditure of $285,000 for improvements and extensions to the system, to include an addition to the present power-house increasing the output from 1,000 HP. to 3,000 HP., construction of a new interurban line to Waverly, and double-tracking several lines in Waterloo. L. S. Cass is Pres.

ALLERTON, IOWA.—L. G. Knapp & Co., Consulting Engrs., New York Life Bldg., Kansas City, Mo., have been engaged to prepare plans and superintend the construction of an electric light plant here. Estimated cost, $12,000.

SPRING VALLEY, MINN.—W. J. Pulford, of Sioux Rapids, Iowa, has purchased the local electric light plant. He proposes to develop a water power located about 5½ miles from the town, where a head of 55 ft. can be secured. A concrete dam and penstock will be built and large water wheels installed. A company with a capital stock of $50,000 will probably be organized to carry out the project.

SARTELL, MINN.—The Watab Pulp & Paper Co., of Sartell, has awarded contract to the ALLIS-CHALMERS CO., of Milwaukee, Wis., for power equipment for the addition to its plant. The equipment will include a 560-KW., 440-volt, 3-phase, 60-cycle, water wheel generator, a 300-KW. synchronous motor generator set, a 300-HP., 240-volt, variable speed, direct-current motor, one 150-HP., one 100-HP., one 50-HP. and one 40-HP. wound rotor induction motors, two 40-HP., two 30-HP. and one 7½-HP., squirrel cage induction motors, one 35 HP. and one 7½-HP., direct-current, variable speed motor.

DODGE CITY, KAN.—The citizens on April 19 voted to issue $29,000 of bonds for the pipe lines and $51,000 for a power plant. The J. S. Worley Co., of Kansas City, Mo., is Engr.

WICHITA, KAN.—We are officially advised that plans are being prepared by Burns & McDonnell, Scarritt Bldg., Kansas City, Mo., for the construction of a concrete dam across the Arkansas River at Wichita. Estimated cost, about $25,000.

SCANDIA, KAN.—The J. S. Worley Co., of Kansas City, Mo., has prepared plans for the construction of an electric light plant here. Estimated cost, $20,000.

OMAHA, NEB.—The Omaha & Council Bluffs St. Ry. Co. has awarded contract to the ALLIS-CHALMERS CO., of Milwaukee, Wis., for a 3,750-KW., 3-phase, 25-cycle, 1,320-r. p. m., 13,200-volt, steam turbo-generator set.

FARGO, N. DAK.—Bids will be received until May 10 by W. A. Gooder, Secy. North Dakota Agricultural College, Fargo, for constructing an electric light plant for the institution.

FORT MISSOULA, MONT.—Bids will be received by Maj. A. B. Shattuck, Constructing Q. M., U. S. A., until noon, May 20, for an electric lighting system here.

OSCEOLA, MO.—Work is to begin July 1 on a dam across the Osage River here to develop power for manufacturing and lighting purposes. Estimated cost, $100,000. It is being promoted by a manufacturing company and the citizens have subscribed $10,000 worth of stock. The work will be finished Nov. 1.

LINN CREEK, MO.—The Continental Power Co. is contemplating the construction of a hydroelectric power plant on the Niangua River. Two estimates have been submitted by engineers, one to construct a 76-ft. dam to develop 12,000 KW. and the other for a 100-ft. dam, which would develop 16,000 KW. The dam site is located about four miles from Linn Creek. Estimated cost of plant, $500,000. The company proposes to transmit electricity to Sedalia, Jefferson City, Booneville and other cities. R. E. Bradford, Century Bldg., St. Louis, Mo., is Mgr.

BRYAN, TEX.—M. M. A. Currie, of Shreveport, La., has applied to the City Council for a franchise to lay gas mains in the streets and alleys. He states that natural gas will be either piped here from the Caddo fields of Louisiana or he will install a plant here to manufacture the product.

BRUNNER (Houston post-office), TEX.—The Brunner Water & Light Co. has awarded contract to D. D. PITTMAN for the erection of a power-house on the company's property in Brunner for their electric light and water plant.

CHEROKEE, OKLA.—Plans and specifications are being prepared by Burns & McDonnell, Scarritt Bldg., Kansas City, Mo., Consulting Engrs., for the construction of an electric light plant, water-works and sewers in Cherokee. Bids will be asked soon.

WETUMKA, OKLA.—Bids will be received until May 6 by the City Engineer for furnishing material and installing a water and light system, requiring five miles c. i. pipe, 50 fire hydrants, a 60,000-gallon tank and tower, two boilers, an engine and an A. C. generator, steam fire pump, centrifugal pump and motor, three miles of lighting line, arc lamps, etc.

MEDFORD, OKLA.—Bids were opened on April 13 for electric light plant and waterworks. Contracts have been awarded as follows: To E. J. MERKLE, of Kansas City, Mo., for 11,460 ft. of 4 and 6-in. pipe, and 1,000 lbs. special castings, $4,362; to ENGLISH IRON WORKS CO., of Kansas City, Mo., for hydrants; to H. N. STRAIGHT MFG. CO., Kansas City, Mo., for one 75-HP. Corliss engine and a 150-HP. Corliss engine; to WESTINGHOUSE ELECTRIC MFG. CO., Kansas City, Mo., for a 50-KW. belted generator, $3,620; to the UNITED ELECTRIC CO., of Wichita, Kan., for line material, except poles.

New bids will be received by the city until May 26 for two 16 × 66-in. R. T. boilers, two feed pumps, and one heater; 1-KW. belted generator, switchboard complete and series tungsten regulator, seven 5-KW. transformers and two 3-KW. transformers, and 405 30, 25 and 40-ft. cedar poles. O'Bannon & Foster Co., of Joplin, Mo., are Engrs.

BRISTOW, OKLA.—R. M. House, of Pine Bluff, Ark., and Charles M. Simpson, of Shawnee, Trustees of the Bristow Light & Power Co., have secured a 25-year franchise. The company will incorporate for $50,000 and construct a lighting and ice plant.

DENVER, COLO.—See item under Water Supply-Irrigation.

PE ELL, WASH.—A party of Aberdeen capitalists, headed by P. S. Locks, have secured water rights on the Chehalis River, near here, where it is said an electric light and power plant will be erected. Application will soon be made to the Council for a franchise to operate an electric light system here.

EUGENE, ORE.—Articles of incorporation have been filed for the Eugene Heating & Electric Power Co., the incorporators being Mayor J. D. Natlock, E. Bangs and S. H. Friendly, with a capital stock of $15,000 for the purpose of installing a heating plant in a brick or concrete building to be erected on the northeast corner of the Bonnett Bros. lot.

BERKELEY, CAL.—The Great Western Power Co. has petitioned the City Council for a 35-year franchise to construct and operate an electric light and power plant here. Under the terms of the franchise the city will have the right to purchase the system at the expiration of the franchise.

OAKLAND, CAL.—A 50-year franchise was granted on April 11 by the Board of Supervisors to the People's Electric Light & Power Co., Oakland, for supplying light and power to San Leandro and Hayward and adjacent territory in the southern portion of the county. L. M. Toffelmier, of San Leandro, is Pres.

TRINITY CENTER, CAL.—Seven thousand dollars are to be expended at once in rebuilding the electric power plant of the Trinity Water & Power Co. that was destroyed by fire last fall. The plant is needed to supply power to the Bonanza King Mine now to be resumed.

OROVILLE, CAL.—Following the acceptance of the bids of Hanscom & Kimball, of Paradise, for a franchise to operate an electric power line over all public roads in Butte County, Mr. Hanscom has announced that his company will erect a power system to supply the settlements along the Paradise Ridge with light and power. The company has recently located sufficient water on Chico Creek to generate 2,000 HP. and plans to start its pole and wire work at once. The towns of Paradise, Orloff and Magalia will be supplied by the company.

PASADENA, CAL.—Plans are being prepared by C. W. Koiner, Supt. Municipal Electric Light Plant, for lighting the Pasadena parks. Cluster lamps will probably be used.

SAN BERNARDINO, CAL.—Plans are being considered by the Southern California Edison Co. for the construction of a large power plant at Slide Lake, on Bear Creek. The plant will furnish electricity for the entire San Bernardino Valley. It is proposed to divert the water supply for the new power plant from Filaree Flats, where the New Bear Valley Mutual Water Co. plans to impound the water. Estimated cost, $600,000.

EUREKA CITY, CAL.—The Humboldt Gas & Electric Co. is preparing to make improvements to the Junction City plant, work on which will begin as soon as the weather will permit. William S. Clark, of Eureka, is Pres.

SAN FRANCISCO, CAL.—Contracts will soon be awarded, it is reported, for electrical equipment for further developments at Horseshoe Bend, on Battle Creek, to include the installation of three 4,000-KW. [illegible] its this season, utilizing a head of 44[illegible] water, making a total output of 42,000 [illegible] between the five power stations of the [illegible]ny.

LOS ANGELES, CAL.—On A[illegible] the citizens voted to issue $6,500,000 [illegible] bonds, of which $3,500,000 will be used [illegible] develop the water power along the Owens R[illegible] aqueduct and $3,000,000 for harbor impr[illegible]. It is expected that about 120,000 [illegible] can be developed. Harry T. Lelands is [illegible].

HAILEY, IDAHO.—The Wood [illegible] Zinc Co. is considering plans for the [illegible] of a power plant and mill to op[illegible] Nay Aug group of mines in Panther [illegible] It is proposed to construct a tr[illegible] from the mouth of the deepest tunnel [illegible] Nay Aug mines to the mill, which will [illegible] located on the Picotte Ranch. John Thom[illegible] Supt.

GUADALAJARA (JALISCO), [illegible]—The Gas Operating & Construction [illegible] Los Angeles, Cal., which has a conces[illegible] the establishment of a gas plant and [illegible] distributing system in Guadalajara, will [illegible] the work of construction about July [illegible] it is announced. George H. Eckert, of [illegible] Francisco, and W. A. Aldrich, of Gran[illegible] Rapids, Mich., Engrs., are now here m[illegible] the necessary surveys.

TEZIUTLAN (PUEBLA), MEX.—[illegible] new copper smelter of the Teziutlan Co[illegible] Mining & Smelting Co., which has [illegible] been finished will be operated by a [illegible] HP. hydroelectric plant, installed by the [illegible] company a few miles from the mining cam[illegible]. This company will soon begin the erectio[illegible] of another hydroelectric plant near its O[illegible] copper mine, in the state of Oxaca. T[illegible] latter plant will be located on the Sola R[illegible] and will be of 1,400 HP. capacity.

MONTEREY, MEX.—The Monterey Light & Power Co. has merged the two plants which formerly furnished the power [illegible] the street railway system and the lighting of the city into one central plant. I[illegible] has already installed two steam turbine generators, each of 1,000-HP., and will install two more of the same capacity. The company will make other important improvements to its railway, light and power system, including extensions of its electric railway lines to suburban points. The company is composed of Toronto, Ont., men.

CHIHUAHUA, MEX.—Gov. Enrique C. Creel, acting on behalf of the State of Chihuahua, has granted to the Mexican Securities Corporation, Ltd., of Halifax, N. S., a concession for the establishment of ten electric lighting and power systems in this state. The concession gives the company the exclusive right to install and operate its plants in the towns of Santa Barbara, Villa Escobedo, Zaragoza, Sancillo, San Francisco de Conchos, Rosales, Naica, Meoqui, Aldana and Santa Rulalia. The Mexican Securities Corporation, Ltd., is closely allied with the Mexican Northern Power Co., the Canadian concern which is constructing a large dam and hydroelectric plant on the Conchos River, 17 miles from Santa Rosalia, under a concession granted by the government of this state. It is stated that the latter company will build transmission lines to all of the towns embraced in the concession that has just been granted to the Mexican Securities Corporation, Ltd., and that it will provide the electrical energy for operating the different sub-lighting and power stations. In addition to furnishing the subsidiary company with power for its several towns and mining camps, the Mexican Northern Power Co. will build transmission lines to the cities of Chihuahua, Parral, Jiminez and probably other places, and carry on a lighting and power business in each of those cities on its own account. The terms of the concession granted the Mexican Securities Corporation, Ltd., provide that it must have its lighting and power systems installed in each of the ten towns within one year after the completion of the hydroelectric plant which the Mexican Northern Power Co. is installing on the Conchos River. The company is building a standard gage railroad from Santa Rosalia to the site of the dam which it is constructing across the river.

BRIDGES.

(denotes that this work is advertised in Engineering News.)*

VAN BUREN, ME.—Construction work on the new bridge across the St. John River between Van Buren and St. Leonard's, N. B., will begin soon. The Maine Legislature at its last session appropriated $37,500 for this bridge, and on April 1 the Dominion and Provincial Parliaments voted a like sum. The entire sum needed is now available.

GLOUCESTER, MASS.—The Boston & Maine R. R. Co. has filed with the State Harbor and Land Commissioners, at Boston, plans for new double-track bridge over Annisquam River here. The bridge will be of the bascule type, 70 ft. long, with draw opening of 40 ft.

CAMBRIDGE, MASS.—A bridge will be constructed over the Charles River from Cambridge to Soldiers' Field, the athletic grounds of Harvard University. Estimated cost, $300,000.

MIDDLETOWN, CONN.—The New York, New Haven & Hartford R. R. Co. will build a new bridge over the Connecticut River at Middletown to cost $1,000,000, which will supersede the single-track bridge now in use.

*JAMESTOWN, N. Y.—Bids will be received by the Board of Estimate and Review until noon May 14 for the construction of two reinforced concrete bridges, one at Windsor St. and the other at Fairmount Ave. Richard Irwin, 507 House Bldg., Pittsburg, Pa., is Engr. Advertised last week.

ALBION, N. J.—Bids are asked by the Bridge Commissioner of the Board of Chosen Freeholders, Court-house, Camden, until 11 a. m., May 9, for the construction of a new concrete culvert over Great Egg Harbor River, between Berlin and Albion.

WILKES-BARRE, PA.—Bids will be received until May 11 by the County Commissioners at Wilkes-Barre, for constructing the following county bridges: Steel bridge over

Lackawanna River, in Duryea Borough, appropriation $8,000; two stone and concrete bridges over Yeates Creek, Pittson City, appropriation $3,000 and $3,500, respectively; steel I-beam and concrete bridge, Sutton's Creek, Exeter Township, appropriation $2,500; steel girder bridge over Black Creek, Sugarloaf Township, appropriation $2,000; steel girder and concrete bridge over Hunlock Creek in Hunlock Township, appropriation $4,000; also several smaller bridges appropriation ranging from $300 to $1,500. James M. Norris is County Audr.

NEW CASTLE, PA.—Bids will be received until May 12 by the Board of County Commissioners, S. E. Crawford, Clk., for furnishing material and constructing five bridges. Thomas A. Gilkey is Engr., New Castle, Pa.

LANCASTER, PA.—Bids will be received until May 6 by the County Commissioners, at Lancaster for constructing a concrete or steel county bridge over the Conestoga Creek at [illegible]'s Mill, in West Earl Township. H. Frank Eshleman is County Controller.

HUMMELSTOWN, PA.—The State Board of Public Grounds and Buildings, Harrisburg, has directed Mason D. Pratt to make the plans for the construction of the new concrete bridge over the Swatara River at Hummelstown. This is the bridge which the court approved a short time ago and was certified to the Board. The plans will be made within a few weeks, it is expected, and bids asked, so that construction work may go ahead during the summer.

WASHINGTON, PA.—John H. Moffitt, County Controller awarded contract on April 26 for the construction of the Wheeling St. arch bridge to WILLIAM PICKETT & CO., at $3,375.

OIL CITY, PA.—Bids are asked until 2 p. m., May 24, by the County Commissioners for the construction of a new bridge in Oil City. The substructure of the new bridge will consist of two masonry abutments and three piers, with concrete bases. The superstructure will consist of an approach on the south side 51 ft. long, one plate girder span 80 ft. long, three steel truss spans each 347 ft. long and an approach on the north side 146 ft. long. The bridge and approaches will have a roadway clearance of 30 ft. and two sidewalks of not less than seven feet clear width. E. K. Smiley is Clk., Franklin, Pa.

*PHILADELPHIA, PA.—Bids are asked until noon, May 17, by George R. Stearns, Dir. Pub. Wks., for Schedule A, bridge on line of Fox St., over the Norristown branch of the Philadelphia & Reading Ry. Steel I-beam bridge encased in concrete, in concrete abutments and piers, 60 ft. wide, one span 30 ft., and two spans 18 ft. each.

PHILADELPHIA, PA.—The Alan Wood Iron & Steel Co., on April 26, awarded the contract for the substructure, piers and abutments, of the bridge across the Schuylkill River at Ivy Rock, to L. H. FOCHT, of Reading. The contract for the superstructure will be awarded soon. The bridge will connect the mills of Richard Heckscher & Sons Co., which have been merged with the Wood Co., located on the east bank of the Schuylkill River, with the Wood plant and will be utilized in transporting cars carrying molten metal from the blast furnaces on one side of the river to the open hearth furnaces on the other side.

HOLLIDAYSBURG, PA.—Bids are asked by the County Commissioners of Blair County until noon, May 17, for repairs to various county bridges. W. S. Hostler is Clk.

BALTIMORE, MD.—The Board of Awards has awarded contract to LAUER & HARPER CO., Westport, Md., for the construction of the steel bridge over Gwynn's Falls at Franklin Road. Estimated cost, $5,000.

BALTIMORE, MD.—The State Roads Commission, John M. Tucker, Chn., Union Trust Bldg., contemplates the construction of a concrete bridge across Herring Run in connection with improvement of Harford Road.

MONTGOMERY, ALA.—HUGGER BROS., of Montgomery, have been awarded contract for the construction of a concrete bridge in Capitol Heights at $8,400. Bids were opened on April 11.

ANNISTON, ALA.—Calhoun County has awarded contract to J. A. GARBURY, Jacksonville, Fla., for constructing concrete bridge on Weavers Road.

*SHREVEPORT, LA.—Bids are asked by C. G. Reeves, Controller, until 5 p. m., May 10, for the construction of a bridge over the Red River. Bids will be received for both the entire bridge including substructure and superstructure, and also for substructure only. Estimated cost of bridge complete, $300,000; of substructure only $100,000. Ira G. Hedrick, 1118 McGee St., Kansas City, Mo., is Engr.

MORRISTOWN, TENN. — Hamblen and Cocke Counties have awarded contract to the CONVERSE BRIDGE CO., Chattanooga, Tenn. for constructing a steel bridge across Nola Chucky River at Inman's Ferry, at $5,927.

PADUCAH, KY.—The Paducah & Illinois Ry. Co. will apply to the War Department for authority to construct a bridge across the Ohio River from at or near Metropolis, Ill., to a location twelve miles below Paducah, double tracks, steel. Estimated cost, $3,000,000. W. L. Breckenridge is Ch. Engr., Chicago, Ill.

HUBBARD, OHIO.—Bids will be received until May 23 by the County Commissioners at Warren for constructing the substructure and superstructure of a bridge across Yankee Run, in Hubbard. Fred. T. Stone is County Audr.

LIMA, OHIO.—We are officially advised that the HACKEDORN CONTRACTING CO., Indianapolis, Ind., has been awarded contract by the Board of Control for a reinforced concrete bridge over Ottawa River near Faurot Park at $10,026. Bids were opened on April 14.

DEFIANCE, OHIO.—The County Commissioners on April 18 authorized the issuance of $48,000 of bonds for bridge work in Defiance County. The sum of $25,000 will be used to replace the Francis St. bridge which was carried out by the ice and high water in February. The new structure, which will be of steel will be about 400 ft. in length. The old structure was 332 ft. long. The bridge floor will be either of concrete or creodone.

CLEVELAND, OHIO.—Bids are asked until 11 a. m., May 21, by the Cuyahoga County Commissioners for the construction of bridge work. J. F. Goldenboyen is Clk.

All bids received on April 18 for strengthening of the Superior viaduct draw were rejected by the Board of Control.

VAN WERT, OHIO.—Bids are asked by the Joint Boards of Commissioners of Allen and Van Wert Counties until noon, May 25, for the labor and material necessary for the construction of a bridge across the canal on the county line between the two counties and at the Ludwig Road crossing. C. R. Phillips is Clk. Allen County Bd.

NILES, OHIO.—Bids are asked until 1 p. m., May 23, by the Trumbull County Commissioners, Warren, Ohio, for the construction of the superstructure of a bridge on Park Ave. extension, Niles. Fred. T. Stone is County Audr.

FREMONT, OHIO.—Contract for the construction of a bridge over the Vermillion River at Fremont, has been awarded to the CROGHAN CONSTRUCTION CO., of Fremont.

DAYTON, OHIO.—Bids for the construction of the Webster St. bridge were opened on April 22 as follows: Capital Construction Co., $10,000. A. S. Fox, $8,855.

ALEXANDRIA, IND.—MASON & SULLIVAN, of Alexandria, have been awarded the contract for the construction of five new concrete bridges in Hamilton County.

KOKOMO, IND.—Bids will be received until May 10 by the Board of County Commissioners for constructing a 2-span reinforced concrete bridge, each span 75 ft. William Ehrman is County Engr.

DANVILLE, IND.—Bids are asked until 10 a. m., May 17 by H. Nichols, County Audr., for the construction of ten bridges. This is a postponement from April 10.

PORTLAND, IND.—We are officially advised that contracts for the construction of 23 culverts in various parts of Jay County have been awarded to PLUMMER B. SWHIER, of Portland.

INDIANAPOLIS, IND.—The Commissioners of Marion County will receive bids until May 17 for the construction of a concrete culvert in Washing Township and a concrete culvert in Center Township, and for the construction of a retaining wall along the East bank of Big Eagle Creek in Wayne Township. Albert Sahm is County Audr.

CROWN POINT, IND.—The Commissioners of Lake County will receive bids for the construction of two bridges until June 6. C. A. Johnson is County Audr.

DETROIT, MICH.—A syndicate headed by E. W. Voigt, 203 Grand River Ave., Detroit, has been granted a franchise, it is reported, for erecting a bridge over Detroit River from the mainland to Grosse Isle, and will appoint an engineer to prepare plans. Estimated cost, $500,000 to $1,000,000.

CHEBOYGAN, MICH.—The Detroit & Mackinac Ry. Co. will present an application to the Board of Supervisors of Cheboygan County on May 10 for permission to construct a railway bridge across the Cheboygan River in the city of Cheboygan near the Cheboygan paper mill. H. S. Waterman is Ch. Engr.

CLINTON, ILL.—The DECATUR BRIDGE CO., has been awarded contract for the construction of the 23 road bridges to be constructed in the Nixon Special Drainage District at $3,700. The bridges will have concrete abutments, oak floors and steel superstructure and will span the 10-mile drainage ditch at necessary points along its course.

*CHICAGO, ILL.—Bids are asked by I. J. Bryan, Clk. Bd. of Trustees of Sanitary District of Chicago, American Trust Bldg., Chicago, until noon, May 11, for machinery, lock-gates, etc., for Sheridan Road bridge and Wilmette pumping station. The work consists of furnishing fabrication and erection of machinery, lock-gates and collateral work for Sheridan Road bridge and Wilmette pumping station for the North Shore Channel. Advertised last week.

STERLING, ILL.—The Highway Commissioners of Montmorency Township on April 23 awarded contract for the construction of five new bridges in the new drainage district of Montmorency to the CLINTON BRIDGE CO., of Clinton, Iowa, at $5,700.

WEST UNION, IOWA.—N. M. STARK BRIDGE CO., of Des Moines, Iowa, has been awarded contract for the construction of the new cement bridge over Otter Creek at the foot of Vine St.

NELSON, NEB.—The STANDARD BRIDGE CO., of Omaha, Neb., has been awarded contract for the construction, completion and repairing of all steel bridges in the county during the year 1910. Bids were opened on April 19.

MARYSVILLE, MO.—The CANTON BRIDGE CO., of Canton, Ohio, has been awarded the contract for building and repairing twelve bridges throughout the county at $4,750.

NEVADA, MO.—Bids are asked until May 17 for erecting four steel bridges, two in Lake Township, one in Harrison and one in Center Townships. James M. Clack is County Highway Engr., Nevada.

SAVANNAH, MO.—Bids will be received until May 6 by J. E. Schnitzius, County Highway Engr., for constructing eight steel bridges and seven concrete culverts.

LITTLE ROCK, ARK.—The St. Louis, Iron Mountain & Southern Ry. Co., E. F. Mitchell, Engr. of Construction, St. Louis, Mo., and Chicago, Rock Island & Pacific Ry. Co., T. W. Fatherson, District Engr., have plans for steel viaduct to be built over the railroad crossing on 19th St. pike.

BATESVILLE, TEX.—Zavalla County has voted $20,000 of bonds for the construction of bridges and roads.

HOUSTON, TEX.—F. L. Dormant, Consulting Engr., for the city has been instructed by H. B. Rice, Mayor, to prepare plans for reinforced concrete viaduct across Houston ship channel at foot of Main St.

DALLAS, TEX.—We are officially advised that on April 21, the Commissioners Court of Dallas County adopted the plans of Ira G. Hedrick, Consulting Engr., Kansas City, Mo., for the Dallas-Oak Cliff reinforced concrete viaduct. It is to be arch type with 50 ft. clear between the handrailings, 40-ft. roadway with two 5-ft. sidewalks. The concrete structure is to be 5,460 ft. in length. Estimated cost, $588,000. Plans will be ready for advertising for bids by May 20.

RIDGWAY, COLO.—Bids were opened on April 9 by Charles W. Comstock, State Engr., Denver, for constructing a steel bridge across Uncompaghre River, near Ridgway. The lowest bid was tnat of M. F. Levy Contracting Co., of Denver, at $10,198.

DENVER, COLO.—M. J. PATTERSON, Denver, has been awarded contract for the construction of an 80-ft. span steel bridge over Blue River 1½ miles north of Dillon, at $6,207. Bids were opened on April 16.

COLFAX, WASH. — The COLUMBIA BRIDGE CO., of Walla Walla, Wash., has been awarded contract for replacing five new steel bridges at $3,900, for constructing the Fisher bridge at $3,900, for the West Elberton bridge and at $1,990 for the Young bridge.

EUGENE, ORE.—Bids are asked until 2 p. m., May 9, by E. U. Lee, County Clk., for the construction and material necessary for the wooden bridge across Row River, about two miles east of Cottage Grove in Lane County.

WEISER, IDAHO.—T. H. FORBES & CO., of Caldwell, Idaho, have been awarded contract for constructing of a bridge here at $12,385.

TORONTO, ONT.—PETER NICHOLSON, of North Bay, Ont., has been awarded contract for the construction of abutments to bridge at M. P. 48.91 and for construction of substructure of steel trestle for Wabis River M. P. 119.13.

The Board of Control on April 20 awarded contract for Wilton Ave. bridge, concrete piers to WELLS & GREY, at $26,900.

WINNIPEG, MAN.—JAMES KELLY, 280 Agnes St., Winnipeg, has been awarded contract for the construction of the abutments to bridge 24.4, Souris Section. Bids were opened on April 14.

*WINNIPEG, MAN.—Bids are asked until 11 a. m., June 28, by the Chairman of the Board of Control at the office of M. Peterson, Secy., for the Brown and Brant St. bridge as follows: (a) construction of concrete piers to be completed on or before Nov. 15, 1910. (b) erection of steel superstructure and floors, with two lines of street railway tracks, to be completed on or before June 1, 1911. Plans, specifications and forms of tender, together with conditions governing tenders as prescribed by by-laws, may be obtained at the office of the City Engineer, Winnipeg.

BUILDINGS.

(denotes that this work is advertised in Engineering News.)*

SPRINGFIELD, MASS.—Bids will be received by the Municipal Building Commission in the Common Council room, Municipal Building, Pynchon St., Springfield, until May 12, for Contract No. 3, heating and ventilation and Contract No. 5, plumbing, for the auditorium, tower and passage, and Municipal Office building of the Municipal Buildings to be erected by the City of Springfield. Pell & Corbett, 122 East 25th St., New York, are Archs.; Hollis French and Allen Hubbard, Albany Bldg., Boston, Mass., are Engrs.

GREENFIELD, MASS.—The Franklin Savings Institution has received the working plans of the building to be erected on the corner of Main and Federal Sts., next to the Franklin County National Bank. The construction will be of stone, but the exact kind has not been decided. The dimensions are 32 ft. front on Main St., 67 ft. 9 ins. on Federal St., 45 ft. high. The architect is Marcus T. Reynolds, 100 State St., Albany, N. Y. The entrance is to be from the Main St. front, and the vestibule opens into the main room, in the center of which will be the counter with grillwork. In the center of the rear will be the vault, at the left of which is to be the president's office and on the right the treasurer's office. On the mezzanine floor above the vault there will be the directors' room, toilets and storeroom.

*NEW LONDON, CONN.—Bids are asked by Capt. F. T. Arnold, Constr. Q. M., New London, until 10 a. m., May 20, for furnishing and installing screens and metal weather strips on ten buildings at Fort H. G. Wright, N. Y., and ten buildings at Fort Terry, N. Y.

TORRINGTON, CONN.—We are officially advised that bids were received by the Adjutant General, State Capitol, Hartford, Conn., April 18, for constructing a State Armory here. The plans call for a brick building, 100 × 90 ft., two stories high, granite trimmed, with steel trusses, steam heat and electric lighting. The contract has been awarded to LEWIS A. MILLER, of Meriden, Conn. Charles Scranton Palmer, of Meriden, is Arch.

BUFFALO, N. Y.—G. Morton Wolfe, Ellicott Sq. Bldg., is preparing plans for a fireproof theater building, 86 × 150 ft, three stories high, of steel, brick and terra cotta, to be erected on Broadway, between Fillmore Ave. and Wilson St., by the Metropolitan Amusement Co. Cost, $100,000.

NEW YORK, N. Y.—Bids are asked by the Board of Trustees of the College of the City of New York, at 17 Lexington Ave., until noon, May 12, for furnishing all necessary labor and material for painting, kalsomining and repairing roofs at the College of the City of New York; for work and material necessary for changing the method of operation of the fireproof kalameine iron doors installed in the corridors of the five buildings of the College of the City of New York.

Plans have been filed by Maynicke & Franke, Archs., 298 Fifth Ave., for a 2-story mercantile building, to be erected at 48 to 52 East 21st St., extending through the block to 49 East 20th St., with a frontage of 75 ft. on 21st St. and 25 ft. on 20th St. The facade will be of ornamental design of limestone, brick and terra cotta. The Roscorn Realty Co., Henry Corn, Pres., is the owner. The cost is estimated at $400,000.

Joseph H. McGuire, Arch., 45 East 42d St., has filed plans for a 5-story parochial school for the Roman Catholic Church of St. Mary, at 79 and 81 Jackson St. The school will have a frontage of 35.8 ft. and a depth of 91.8 ft. It will be of the French Renaissance design. In the basement will be the young men's clubroom. The cost is estimated at $50,000.

The Century Holding Co. has filed plans for the proposed 12-story apartment house to be built at 998 Fifth Ave., north corner of 81st St. The house will accommodate 18 families and will cost $500,000. The architects are McKim, Mead & White, 160 Fifth Ave. The building will front 102.2 ft., on the avenue and 115 ft. on the street.

*NEW YORK, N. Y.—Bids are asked by James Knox Taylor, Superv. Arch., Treasury Dept., Washington, D. C., until 3 p. m., June 6, for two additional steam freight elevators at the U. S. Appraisers' warehouse, New York, N. Y.

Plans have also been filed for a 12-story store and loft building to be erected at 144 to 152 West 27th St., with a frontage of 67.8 ft. and a depth of 88 ft. The facade will be of brick, limestone and terra cotta. The People's Co-operative Property Co., Samuel Mayers, Pres., is the owner. Buchman & Fox, Arch., 11 East 59th St., estimate the cost at $275,000.

Frederick Zoble, Arch., 114 East 28th St., has filed plans for a 12-story fireproof store and light manufacturing building to be erected at 12 to 16 East 22d St., for the Brunswick Realty Co., Robert P. Zobel, Pres., at a cost of $250,000.

Plans have been filed for a 10-story fireproof apartment house to be erected at the southeast corner of Riverside Drive and 156th St., for the Willie Construction Co., Valentine Willie, Pres. The facade will be of brick, with trimmings of limestone and terra cotta. It will have a frontage of 105.9¾ ft. on Riverside Drive and 114.7¾ ft. on 156th St., with accommodations for 51 families. Schwartz & Gross are Archs., 347 Fifth Ave. Estimated cost, $400,000.

NEW YORK, N. Y.—Plans have also been filed for a 4-story garage, to be built on the north side of 83d St., 208 ft. east of Amsterdam Ave., with a frontage of 67 ft. and a depth of 111.6 ft., with an extension 31 × 7 ft. Max A. Cramer is the owner. The cost is estimated at $75,000. George F. Pelham, 507 Fifth Ave., is Arch.

The same architect has filed plans for a 16-story store and lofts to be erected at 44 to 50 West 28th St., for the Regent Construction Co., Ignatz Roth, Pres. The building will have a frontage of 99 ft. and a depth of 80 ft., and is to cost $500,000.

NEW YORK, N. Y.—Bids are asked by C. B. J. Snyder, Supt. of School Bldgs., Dept. of Education, until 11 a. m., May 16, (1) for alterations, repairs, etc., at Public Schools Nos. 61, 63, 65, 72, 76, 90, 91, 108, 109, 119, 149, 159, Truant School and Erasmus Hall High School, Boro. of Brooklyn; (2) for alterations, repairs, etc., at Public Schools Nos. 13, 14, 19, 20, 25, 35, 40, 47, 50, 63, 79, 104, 122, 140, 160, 161 and Stuyvesant High School, Boro. of Manhattan; (3) for alterations, repairs, etc., at Public Schools Nos. 1, 3, 9, 18, 25, 27, 29, 30, 31, 37, 38 and 43, Boro. of The Bronx.

*MIDDLETOWN, N. Y.—Bids are asked by James Knox Taylor, Superv. Arch., Treasury Dept., Washington, D. C., until 3 p. m., June 9, for the construction complete (including plumbing, gas piping, heating apparatus, electric conduits and wiring) of the U. S. post-office at Middletown, N. Y.

CAMDEN, N. J.—Seymour Davis and Paul A. Davis, Archs., 1600 Chestnut St., Philadelphia, Pa., have been commissioned to plan a domestic science and manual training school for colored children, to be erected at Eighth and Chestnut Sts., Camden. The building will be two stories high, of brick, 108 × 124 ft., and will cost about $80,000.

*LONG BRANCH, N. J.—Bids are asked by the Board of Education until 10 a. m., May 25, on plans and specifications of Henry C. Pelton, Arch., 10 East 33d St., New York, and Chester A. Slocum, Heating and Electrical Engr., of Long Branch, N. J., for a new High School building, to be erected by the Board of Education in Long Branch.

PHILADELPHIA, PA.—The contract for the 10-story brick and reinforced concrete building to be erected from plans by Watson & Huckel, 1211 Walnut St., at the southeast corner of Broad and Spring Garden Sts., has been let to the ROYDHOUSE-AREY CO., Fidelity Bldg. The building will measure 73 × 100 ft. and will cost about $250,000.

The West Philadelphia Branch of the Y. M. C. A. has bought the properties at the northeast corner of 52d and Sansom Sts., through Thomas A. Redding & Son. Upon the site a building for the use of the association will be erected at a cost of about $200,000. The properties comprising the total lot, which measures 98 × 190 ft., are occupied by the 2-story houses at 109 to 121 South 52d St., and lots at 5133 Sansom St. and west.

PHILADELPHIA, PA.—The Philadelphia & Reading Ry. Co. has awarded to CRAMP & CO., Commonwealth Bldg., the contract for erecting the proposed office building at Ninth and Spring Garden Sts., at their bid of $237,000. The building will have five stories and basement and will be of brick, steel and fireproof construction, and when completed will be used for a passenger and immigrant station, Y. M. C. A. department and general

offices. Between the building and the railroad, at the second floor level, will be a cement platform for passenger service. This platform will be connected with wide stairways leading to Spring Garden St. and Green St. and will be covered with reinforced concrete shelter roof. The exterior of the building will be finished in red and light gray brick trimmed with Indiana limestone and terra-cotta, and surmounted with large copper cornice. Two fireproof vaults are provided on each floor, and there will be two passenger elevators and one freight elevator. The building will be equipped with a vacuum-cleaning system and modern toilet facilities are provided on each floor. The interior woodwork will be of red oak. The floors will be of steel and concrete fireproof construction covered with wood flooring in the office rooms, and the halls will be floored with Terraza with marble sub-base. The building will be heated and lighted from the general power plant now being completed in the Green St. yard. William Hunter, Philadelphia, is Ch. Engr.

HOMESTEAD, PA.—THE HOMESTEAD LUMBER CO. has been awarded the contract for the erection of the proposed First Methodist Episcopal Church at Homestead, the contract price being $45,000 exclusive of the furnishings. When completed the church will have cost $60,000.

MONESSEN, PA.—Bids are asked by J. M. Jamieson, 500 McKee Ave., Secy. School Bd., until 7.30 p. m., May 9, for the erection and completion of an 8-room school building to be erected on Linden Ave. for the Board of Education of Monessen, Pa.

ALTOONA, PA.—Bids are asked by the Board of Education until 7 p. m., May 9, for the erection of a brick, stone and fireproof construction school building to be built on the corner of Lloyd St. and Crawford Ave., Altoona. C. M. Piper is Secy. Shollar & Hersh, Altoona, Pa., are Archs.

PITTSBURG, PA.—Bids are asked by James Knox Taylor, Superv. Arch., Treasury Dept., Washington, D. C., until 3 p. m., June 13, for the installation of the new high pressure steam boiler plant and accessories for the U. S. court-house and post-office building, Pittsburg, Pa.

The Commonwealth Trust Co. has let a contract to the A. & S. WILSON CO., 541 Third Ave., for the erection of a $50,000 addition to the trust company's building on Fourth Ave. The improvement will consist of an extension, 22¼ × 85 ft., from the rear of the present building back to Third Ave., the lot to be utilized being the former Wolfe holdings bought by the trust company several years ago. The addition will be 1-story, with skylight of the same design as the present one and the interior finish of the annex will be white marble and gold bronze to conform with the present building. In extending the building through to Third Ave., there will be no Third Ave. entrance, as the annex will be two stories on the Third Ave. end, a directors' room is to be on the second floor. It will have a marble balcony in front and will be reached by a marble stairway. The addition is to be occupied by the trust department of the company, and a suite of private rooms will also be provided for use of patrons of the safe deposit department.

*FORT DU PONT, (Delaware City postoffice), DEL.—Bids are asked by the Constructing Q. M., until 11 a. m., May 16, for furnishing and installing metal frame window screens, door and transom screens in five new buildings at Fort DuPont, Del.

BALTIMORE, MD.—Ground has been broken for the erection of the Country School for Boys on Belvidere Ave., north of Roland Park. The contract has been awarded to EDWARD BRADY & SONS, 1109 Cathedral St. Exclusive of the heating plant, the new structure will cost about $135,000. The plans, which were prepared by Parker, Thomas & Rice, Archs., Union Trust Bldg., call for a building of English design to accommodate about 200 students. Besides the usual dormitories for the students and rooms for the masters, the building will be equipped with gymnasium, including baths. It will be situated in the centre of a tract of 70 acres of land at the intersection of Belvidere and Roland Aves.

FORT MYER, VA.—Bids are asked by Capt. Warren W. Whitside, Constr. Q. M., until 11 a. m., May 11, for an addition to the present administration building at Fort Myer.

*FORT MONROE, VA.—Bids are asked by Capt. Ernest R. Tilton, Q. M., until 10 a. m., May 27, for the construction, including plumbing, heating, electric wiring and fixtures, of nine double sets of N. C. O.'s quarters at Fort Monroe, Va.

ATLANTA, GA.—An 8-story office building that will cost $130,000 is to be built at the corner of Walton and Cone Sts., by A. D. Adair & McCarty Bros., fertilizer manufacturers, Empire Bldg. Work on this new building will be begun within a few days under the direction of P. Thornton Marve, Arch., Equitable Bldg., Atlanta. Contract for the construction has been awarded to MOISE DeLEON. The building will front 50 ft. on Walton St. and 100 ft. on Cone St. The basement is to extend under the sidewalk both on Cone and Walton Sts., and will contain cellars for stores, heating apparatus, elevator machinery and such equipment. The first floor will contain two stores on Walton St. and one store on Cone St., with entrances for offices on both streets. The second to eighth stories, inclusive, will contain offices. There will be two electric passenger elevators, and each office will be provided with all modern conveniences. The exterior of the building is to be constructed of tapestry brick with stone and terra cotta trimmings. The building will be of reinforced concrete construction, and will be fireproof. All halls, corridors, and stores will have floors of tile, and the stairways will be of iron and marble.

NEWNAN, GA.—Bids were received as follows on April 29, at the office of James Knox Taylor, Superv. Arch. of the Treasury Dept., Washington, D. C., for the construction of a post-office at Newnan, Ga.: Algernon Blair, Montgomery, Ala., $47,146; George A. Clayton, Atlanta, Ga., $52,252; King Lumber Co., Charlottesville, Va., $49,800; George Becking, Chattanooga, Tenn., $50,000.

COLUMBUS, OHIO.—FRANCIS BROS., 165½ North High St., Columbus, have been awarded the contract for the construction of the Franklin County Tuberculosis Hospital.

COLUMBUS, OHIO.—Stribling, Elliott, Inscho & Bulford have been retained to prepare plans for the Masonic Temple to be erected by York Lodge, F. & A. M., at Smith Place Ave. and High St.

LIMA, OHIO.—W. F. Broadbeck, of St. Mary's, Ohio, was the low bidder on the construction of a tuberculosis hospital for Allen County. His bid was $91,447.

MASSILLON, OHIO.—Bids are asked until noon, May 13, by I. N. Butler, Clerk Bd. of Education of Jackson Township, for the erection of a brick school house on the grounds on Sub-District No. 5 in said township.

DEFIANCE, OHIO.—M. M. Stophlet, Arch., Nasby Bldg., Toledo, Ohio, will take bids about May 15, on a 4-story and basement Temple for the Masons of Defiance. Press brick, composition roof, hardwood finish and floors and gas and electric fixtures will be used in construction. Estimated cost, $50,000.

CLEVELAND, OHIO.—The Euclid-Doan Co. will erect a $100,000 5-story office structure at Euclid Ave. and East 105th St., to be completed Oct. 1.

ATHENS, OHIO.—F. W. Elliott, Arch., Board of Trade Bldg., Columbus, is drawing plans for a $40,000 school building to be erected at Athens, Ohio.

INDIANAPOLIS, IND.—Charles D. Pearson, 1538 Broadway, Indianapolis, has purchased a site on South Delaware St., on which to erect a warehouse.

The Trustee of Warren Township has ordered plans for the erection of a consolidated school building. John R. Carr, County Supt., has the matter in hand.

EVANSVILLE, IND.—J. A. Brown, will soon ask for bids for the erection of a tobacco warehouse and several dwellings.

Plans for the erection of a market house are being prepared. Bids will be asked for as soon as the plans are completed. The Board of Public Works will receive the bids.

ANDERSON, IND.—The German Liberal Society has ordered plans for the construction of a $60,000 German house. Bids will be asked for by the Trustees as soon as plans are completed.

ELKHART, IND.—Jacob Winer has employed W. A. Swasey, 47 West 34th St., New York, Arch., to prepare plans for the construction of a new and modern theatre building. Bids will be asked for as soon as plans are completed.

SHELBYVILLE, IND.—W. B. Ittner, Arch., Board of Education Bldg., St. Louis, Mo., has been employed by the School Board to make plans and specifications for the erection of a high school building. The building will be brick and stone and will have 15 rooms. Bids will be in order as soon as plans are completed.

NEWCASTLE, IND.—The Lake Erie & Western R. R. Co. will soon let a contract for the construction of a passenger and freight station here. W. J. Atwood is Ch. Engr., Indianapolis.

MONROE, MICH.—All proposals received for the proposed 2-story and basement High School, 195 × 79 ft., for the Board of Education, Monroe, Mich., Thos. Waters, Secy., exceeded the appropriation and were rejected. Van Leyen & Schilling, Archs., 1115-7 Union Trust Bldg., Detroit, will revise the plans and the contract will be re-advertised.

DETROIT, MICH.—John Scott & Co., Arch., Ford Bldg., Detroit, have let the general contract for the proposed 7-story warehouse for the Leonard Reliable Storage Co., 23 Alexandrine Ave., to the A. J. SMITH CONSTRUCTION CO., 911 Hammond Bldg., Detroit. Cost, $60,000.

DETROIT, MICH.—Spier, Rohns & Gehrke, Archs., Chamber of Commerce Bldg., Detroit, are taking bids for a church, 50 × 88 ft., for the Grace Evangelical Lutheran Society, Detroit. Paving and stock brick, Bedford cut stone, structural iron, hardwood finish and floors and electric fixtures will be used in construction.

Pollmar & Ropes, Archs., Cleland Bldg., Detroit, have let the following contracts for the proposed 3-story and basement residence 88 × 55 ft., to be located at Grosse Point, Mich., for George Osius, 227 Field Ave., Detroit: the residence is to cost about $50,000. Masonry contract has been let to C. KULOW, 957 Field Ave.; carpentry to TONN & SCHRIEBER, 127 Grandy Ave.; tile roofing to the DETROIT ROOFING & TILE CO., M. C. R. R. & Longo Road; hot water heating and plumbing to CUDWORTH & HUTZENBUCHLER, Mt. Clemens, Mich.; plastering to W. H. HUEBNER, 377 St. Clair Ave.; electric work to SHERRATT ELECTRIC CO., 14 Washington Pl.

Smith, Hinchman & Grylls, Archs., Washington Arcade Bldg., Detroit, have prepared plans and specifications for a store and office building, 64 × 120 ft., with three stories and basement, to cost about $50,000, for Hannan & Mills, McGraw Bldg: The structure is to be located at the corner of John R. and Farmer Sts. Press and stock brick, Bedford cut stone, terra cotta, composition roof, structural iron, hardwood finish and floors, granolithic tiling and electric fixtures will be used in construction.

Albert Kahn & E. Wilby, Archs., Trussed Concrete Bldg., Detroit, have prepared plans and specifications for a 1-story storage building, 181 × 73 ft., for the Anderson Forge Co., W. R. Anderson, Gen. Mgr., 21-31 St. Aubin Ave.

Pollmar & Ropes, Archs., Cleland Bldg., Detroit, are taking bids on a 2-story and basement store and office building, 48 × 65 ft., for Charles W. Mann, 900 Woodward Ave., Detroit. The building will be located at the corner of Woodward and Forrest Aves. Paving and stock brick, Bedford cut stone, composition roof, galvanized iron skylight, structural iron, hardwood finish and floors and electric fixtures will be used in construction.

BATTLE CREEK, MICH.—H. C. Hengels, Arch., 702 Grand Ave., Milwaukee, Wis., will take figures at once on a 4-story and basement, Elks' Temple, to cost $45,000, for the B. P. O. E. of Battle Creek, Mich.; Harry Lewis, Secy.

LANSING, MICH.—E. A. Bowd, Arch., 127 West Allegan St., Lansing, is preparing plans and specifications for a church of Gothic design, 168 × 77 ft., to cost $1,200, for St. Mary's Catholic Society, Rev. Fr. Brancheau, Rector, 321 West Ionia St. Construction will be of stone, brick, structural iron, with oak finish and gas and electric fixtures will be used in construction. Cost, $80,000.

E. A. Bowd, Arch., 127 West Allegan St., Lansing, is preparing plans and specifications for a 12-room, 2-story school to cost $40,000, for the School for Blind. C. E. Holmes, Supt., foot of West Franklin St., Lansing, will take figures about May 15. The school is to be of brick or reinforced concrete construction.

CHICAGO, ILL.—It has been announced that Wells-Fargo & Co. will begin construction of a 12-story office building upon part of the property which was purchased about a year ago on Fifth Ave., south of Polk St., to cost about $600,000. Beers & Beers, Orchestra Bldg., are the architects who designed the structure, which will occupy the north 86 ft. of the company's holding, with a depth of 106 ft., and it is expected it will be completed and ready for occupancy by the first of the year.

James K. Sebree proposes to build a 16-story hotel at 110 to 114 Madison St., from designs by Postle & Mahler, Marquette Bldg., with Jenney, Mundie & Jenson, Asso. Archs., New York Life Bldg. The design of the front of the building is in the French renaissance and it will be executed in paving brick and terra-cotta. The paving brick will be of dark Indian red relieved by cream-colored terra-cotta. These have been chosen for the reason that the brick will absorb moisture in a moderate degree. The upper part of the front will be surrounded by amalgamated copper or red tile. It will front 67 ft. and will have a depth of 200 ft. and will stand upon caissons going down to bed rock at a depth of 110 ft.

MILWAUKEE, WIS.—The Wisconsin Masonic Consistory has decided to build a structure to be used in place of the present building. The Building Committee will have plans prepared and it is expected that the building will cost $150,000.

GRAND RAPIDS, WIS.—The plans prepared by H. H. Waterman, Arch., Continental Bank Bldg., Chicago, have been accepted by the Johnson & Hill Co., for its store building, to be built at a cost of $50,000.

DES MOINES, IOWA.—J. O. Wells, Pres. of the Wells Livery & Automobile Co., will erect a 5 or 6-story reinforced-concrete building at 119 Fourth St., the present site of his old livery stable. The building will cost about $50,000 and work will begin the latter part of May.

ST. PAUL, MINN.—Dr. E. W. Buckley, Chn. Knights of Columbus Hall Association, city, is receiving competitive designs for the construction of a pressed brick and cut stone clubhouse to be built at Fifth St. and Smith Ave. It will have a gymnasium, swimming pool, hall, seating 1,000 with stage and balcony. Cost, $150,000.

FORT LEAVENWORTH, KAN.—Bids are asked by Capt. William D. Davis, Q. M., Fort Leavenworth, until 11 a. m., May 24, for construction, plumbing, heating, wiring and fixtures of the following buildings: Two sets field officers' quarters, two double sets company officers' quarters, three 4-set officers' quarters.

FORMAN, N. DAK.—Bids will be received until 10 a. m., May 17, by S. Irving, County Audr., for the construction of a 2-story cut stone, fireproof court-house to be built here. Buechner & Orth, Manhattan Bldg., St. Paul, Minn., are Archs. Cost, $50,000.

LANDER, WYO.—Bids were received as follows on May 2, by James Knox Taylor, Superv. Arch. of the Treasury Dept., Washington, D. C., for the construction of a post-office at Lander, Wyo.: King Lumber Co., Charlottesville, Va., $117,300; Tom Lovell & Co., Denton, Tex., $98,368; Northern Construction Co., Milwaukee, Wis., $117,974; Northwestern Construction Co., Wahpeton, N. Dak., $107,774; Charles W. Peckworth, New York, $106,727; William H. Maxwell, Tacoma, Wash., $111,846.

CARROLLTON, MO.—Bids are asked by James Knox Taylor, Superv. Arch., Treasury Dept., Washington, D. C., until 3 p. m., June 2, for the construction (including plumbing, gas piping, heating apparatus, electric conduits and wiring), of the U. S. post-office at Carrollton.

ST. LOUIS, MO.—The Illinois Traction System has decided to erect a $1,500,000 depot and office building at St. Louis. The plans include the construction of a block, 15 stories high, which will be used by the McKinley Co. for offices and for rental of offices to other concerns. The first story, it is stated, will be used for ticket offices and freight. The second will be devoted to waiting room space and the upper floors to office rooms. W. B. McKinley, Champaign, Ill., is Pres.; H. E. Chubbuck, Peoria, Ill., Gen. Mgr.

ST. LOUIS, MO.—Announcement was made on April 28 of gifts aggregating $3,000,000 to Washington University, St. Louis, and of a plan to enlarge the medical department of the university by the expenditure for buildings and equipment of between $5,000,000 and $6,000,000. The $3,000,000 gift was made by W. K. Bixby, Adolphus Busch, Edward Mallinckrodt and Robert S. Brookings, all of St. Louis.

Property with 29 ft. on the north side of Washington Ave., about 185 ft. west of 13th St., has been transferred from the Annette Realty Co., to Ferdinand H. Manger, for $58,000. The lot has a depth of 132 ft., and it is stated that Mr. Manger [illegible] erect a $75,000 business building of [illegible]ut seven stories. The Weisels-Gerhart [illegible]al Estate Co., 104 North Eighth St., is [illegible]sted.

MAGNOLIA, ARK.—Bids are [illegible]ed until noon, June 15, by J. T. M. Hol[illegible], Third District Agricultural School, [illegible], Ark., and I. A. Bird, Chn. Fourth D[illegible] Agricultural School, Wilmar, Ark., [illegible] the construction of a group of buildi[illegible] for the Third and Fourth District [illegible]cultural Schools, to be erected at Magnol[illegible]k., and Monticello, Ark. Separate bids [illegible] made on each group of buildings. [illegible] and specifications may be seen at [illegible]ffice of Theodore M. Sanders, Arch., Sou[illegible] Trust Building, Little Rock, Ark., o[illegible] after May 23.

MONTICELLO, ARK.—See Mag[illegible] Ark.

AUSTIN, TEX.—The State Uni[illegible]y Regents have selected a site for th[illegible]posed $250,000 library building, work u[illegible] which is to begin at once.

TEMPLE, TEX.—The Gulf, Co[illegible]do & Santa Fe Ry. Co., with headqu[illegible]rs at Galveston, has had plans drawn for [illegible]reight office building and warehouses her[illegible].

EL PASO, TEX.—The plans an[illegible]pecifications for the proposed 12-story a[illegible] basement office building that is to be [illegible]ected here for Gen. Anson Mills have [illegible] finished by Trost & Trost, Archs., [illegible] Paso, and bids are being received.

GALVESTON, TEX.—The plans [illegible] the hotel to be erected here at a cost [illegible] $500,000, are being prepared by Russell [illegible] Mauran, Archs., St. Louis, Mo., and [illegible]ll be finished soon and ready for receiv[illegible] bids for the construction of the buildi[illegible].

HOUSTON, TEX.—The plans for th[illegible] office building which the Southern Pacific [illegible]y. Co. will erect here, were recently dra[illegible] by Jarvis Hunt, Arch. for the compan[illegible] and were sent to Chicago for approval [illegible] the road's officials. The proposed buildi[illegible] will be nine stories in height and occu[illegible]y an area of 145 × 174 ft.

HOUSTON, TEX.—The Southwestern Telegraph & Telephone Co., has purchased a site here upon which it will erect a [illegible]-story building that will be occupied by its offices. J. E. Farnsworth, of Dallas, Tex., is Mgr.

The contract for preparing the pla[illegible]s and specifications of the proposed Union National Bank Building in this city ha[illegible] been let to A. J. Russell of Russell & Mauran, Archs., St. Louis, Mo. The building will be a steel structure and will cost over $[illegible],000.

CLEBURNE, TEX.—It is announced that the Atchison, Topeka & Santa Fe Ry. Co. has appropriated $375,000 for the construction of new railway yards and depot at Cleburne. The contracts for the improvements will be let soon. C. A. Morse is Ch. Engr., Topeka, Kan.

AUSTIN, TEX.—W. M. Brockett, of Peoria, Ill., has under consideration the matter of erecting a hotel building at Austin to cost about $350,000.

DALLAS, TEX.—The State Railroad Commission, at Austin, Tex., has issued an order requiring the several railroads entering Dallas to submit plans to that body by July 1 for the erection in this city of two union depots. The original order required that plans for one union depot be submitted to the Commission by May 1, but, upon petition of the railroads involved, the change was made so as to provide for two union depots and extending the time for the submission of the plans. It is proposed that one depot shall be used by the Houston & Texas Central, the Texas & Pacific and the Texas & New Orleans and the other by the Atchison, Topeka, & Santa Fe, the St. Louis Southwestern, the Frisco, the Rock Island, the Trinity & Brazos Valley, and the Missouri, Kansas & Texas.

WICHITA FALLS, TEX.—The railroad companies entering this city, according to press reports, plan improvements here during the year and the buildings contemplated entail an expenditure of about $400,000 in addition to the cost of sites, which is about $150,000. The Fort Worth & Denver, the Missouri, Kansas & Texas, the Wichita Valley, the Wichita Falls & Oklahoma, the Wichita Falls & Northwestern and the Wichita Falls & Southern will jointly erect a union depot costing about $100,000. The Wichita Falls and the Wichita Falls & Southern will jointly erect shops, a round-house and similar improvements, at a cost of about $100,000. These two companies have purchased sites for the erection of their freight depot, costing $50,000. An office building costing $25,000 is nearing completion. The Fort Worth & Denver has acquired at a cost of $57,000 the site for its freight terminals, which will cost about $50,000. In addition it will spend a large sum for trackage improvements. The Wichita Valley and the Wichita Walls & Oklahoma will use these improvements.

ENID, OKLA.—The following bids were received by James Knox Taylor, Superv. Arch., Treasury Dept., Washington, D. C., on April 27 for the construction of the U. S. post-office at Enid, Okla.: J. E. & A. L. P[illegible]nock, Land Title Bldg., Philadelphia, Pa., $1[illegible],400. Hiram Lloyd Building & Construct[illegible]n Co., Odd Fellows' Bldg., St. Louis, Mo., $115,968. Tom Lovell & Sons, San Antonio, Tex., $111,708. L. H. Wright, Dallas, Tex. $129,750.

*DENVER, COLO.—James Knox Taylor, Superv. Arch. of the Treasury Dept., Washington, D. C., has awarded contr[illegible]t for the construction of the foundatio[illegible] and superstructure of the Denver post-o[illegible]ice to the Hedden Construction Co., 1 [illegible]adison Ave., New York, at $1,212,890. Ti[illegible]e, Dec. 15, 1911. A complete list of [illegible] bids received was published on March 24.

SAN FRANCISCO, CAL.—Plans [illegible]r the new City Hall that is to stand at o[illegible] of the corners of Mission and Eighth Sts. which have been drawn by Mohr, Febre & Folkes, Archs., Pacific Bldg., provide for a 4-story Class B concrete building. Additio[illegible] room is provided by means of a mezzan[illegible]e floor that will overlook the main floor, [illegible]nd two

elevator[illegible] [illegible]ill be installed. At the rear of the ma[illegible] building will be erected a stable, corresp[illegible]ing in architecture to the City Hall, w[illegible] is to be used by the Emergency Hospita[illegible] [illegible]r its horses and ambulances.

A ho[illegible] to cost $60,000, as estimated, will be erec[illegible] for Kathleen Farrell, owner of the pro[illegible]y at the southwest corner of Golden Ga[illegible] Ave. and Larkin St. It will be five stories [illegible]h, of brick, and will contain stores [illegible] addition to the hotel proper.

A co[illegible]ct has been let by Swift & Co., to THOM[illegible] H. DAY'S SONS, for all work, except p[illegible]bing and elevators, for a wholesale marke[illegible] [illegible]ilding at the corner of Pacific and Davis [illegible]. Cost, $122,000.

SAN [illegible]RANCISCO, CAL.—A permit has been [illegible] out by the Berkshire Apartments, a corp[illegible]ion, to erect a 5-story brick structure [illegible]e west line of Jones St., 122 ft. south [illegible] Sutter St. The estimated cost for this a[illegible]ment building, as set forth in the perm[illegible], $120,000.

The [illegible]gents of the University of California ha[illegible] voted to erect a hotel structure in the no[illegible] side of Sutter St., between Montgomer[illegible] and Kearney Sts., at a cost of about $250,0[illegible] The structure is to have four fronta[illegible]

ORO[illegible]LLE, CAL.—Oroville is about to have a hotel to cost $80,000. The plans for t[illegible] structure have been prepared by Alfre[illegible] Henry Jacobs, Arch., 20 Montgomery St., S[illegible] Francisco, Cal. The money has been provided by a syndicate of Oroville men. The construction of the hotel will begin at once. The plans show that the building will consist of four floors with basement. It will cover a ground space of 133 × 87 ft. The construction is of reinforced concrete and 75 rooms are provided for. On the ground floor will be a lobby, dining room, bar and loggia. On the second floor, in addition to the hotel proper, there will be a business men's club. The style of architecture is an adaptation of the Spanish. The cost of $80,000 is exclusive of the land.

LOS ANGELES, CAL.—A $1,000,000 building is to be erected on site at Seventh St. and Grand Ave. John Brockman will erect the building, but has not yet decided upon the style.

The plans for the new Orpheum Theater, to be erected on Broadway between Sixth and Seventh Sts., have been completed and bids for the construction work are being taken by R. B. Young & Son, Lankershim Bldg. It will be a 5-story and basement Class A structure and will cost $200,000. It will have concrete foundation, tar and gravel roof, structural steel and iron, concrete floors, exterior finish of reinforced concrete with terra cotta facing, brick and concrete partitions, finished floors of tile; marble, mosaic, terrazzo and tile work, interior finish of hardwood and metal, ornamental and hardwall plaster; metal lath; conduit system of electric wiring; electric elevators, fire escapes, cast-iron ventilators, galvanized iron skylights, heating plant; plate, wire and twenty-one ounce glass, door openers, fire and damp proofing.

SACRAMENTO, CAL.—James Knox Taylor, Superv. Arch. of the Treasury Dept., Washington, D. C., has awarded contract for the construction of a post-office building extension at Sacramento, Cal., to AMBROSE B. STANNARD, St. James Bldg., New York, at $113,450.

SAN DIEGO, CAL.—The First Presbyterian Church has purchased a site occupying a city block, and will commission architects to prepare plans at once for a church to seat 1,400. Estimated cost, $50,000. W. M. Herbert, Fifth Ave. and Robinson Sts., has the matter in charge.

REDLANDS, CAL.—Norman F. Marsh, Arch., Broadway Central Bldg., Los Angeles, Cal., has been commissioned to prepare plans for a Household and Fine Arts building and a Manual Arts Building, for Redlands. The first will be of classical design with brick walls, plastered on exterior, 138 × 70 ft., two stories and basement, laundry, lockers, steel beams and columns, galvanized iron cornice, skylights, fire escapes forced blast system of heating and ventilating, vacuum cleaning system, power house. Manual Arts building will have one story. 150 × 160 ft. Estimated cost, $75,000.

FORT WINFIELD SCOTT (San Francisco post-office), CAL.—Bids are asked by Maj. George McK. Williamson, Q. M., Fort Mason, San Francisco, until 11 a. m., May 27, for constructing, installing plumbing, heating and electric wiring in two single barracks at Fort Winfield Scott, Cal.

PHOENIX, ARIZ.—The Board of Education has advertised for bids for the erection of a grammar school, 160 × 160 ft., to be built in District No. 1 from plans by Harrison Albright, Arch., Loughlin Bldg., Los Angeles, Cal. The building to be two stories high, of brick construction faced with cream colored pressed brick and terra cotta trim. There are to be 14 class rooms, a concrete basement, heating plant, etc. Estimated cost, $80,000.

GENOA, NEV.—Bids are asked by H. C. Jepson, Clerk Bd. of Supervs., Genoa, until May 9, for a reinforced concrete jail building.

MONTREAL, QUE. — Finley & Spence, Archs., Guardian Bldg., have prepared plans for converting the Carsley block into a hotel, to be called Royal Edward. The plans have been accepted by a Montreal syndicate. Work will be begun almost immediately, and the whole completed, it is expected, by the fall. It is said that $200,000 will be expended. There will be 134 sleeping rooms, with a bath in every room. The walls and floors of the Carsley block have been tested, and the architects say that they are equal to the demands which will be made upon them. The space given over for the new hotel is [illegible],000 sq. ft. There will be an entrance from St. James St., and a second from Notre Dame St. The stores formerly occupied by John Murphy & Co. have been rented and will not come into the hotel scheme.

MONTREAL, QUE.—Willis & Co., Ltd., piano dealers, have had plans prepared for the erection of an 8-story building on the southwest corner of St. Catherine and Drummond Sts. on the site of the premises now occupied by J. A. Harte's drug store. The structure will be entirely occupied by the owners for their own business. The first or street floor will be used as a general reception floor and show room; the second floor for the general and directors' offices; the third floor for a concert hall, the fourth and fifth floors for parlor show rooms; the seventh floor for repair and polishing rooms, and the eighth floor for janitor's apartments and store rooms. The building has been designed by Rose & MacFarlane, Archs., 1 Belmont St., Montreal. It will be constructed of fireproof materials, the framing consisting of fireproofed steel and the floors of reinforced concrete. The exterior will be of gray limestone.

TORONTO, ONT.—A 10-story building will be erected here this summer by R. T. Dabney, of Portland, Ore., on a site 106 × 150 ft.

PORT ARTHUR, ONT.—Bids will be received until May 16, by G. Emil Tanguay, 20½ Aiguillon St., Quebec, Que., for the erection and completion of a Roman Catholic Church.

OTTAWA, ONT.—It is stated that contracts will be let son for a department building to be erected here by the Dominion Government. The building is to provide room for Government branches which are now being accommodated in rented buildings and which are scattered all over Ottawa. The structure will be located in Major's Hill Park, across the locks of the Rideau Canal from the present group of Parliamentary and Departmental buildings. It will be 200 yds. distant from the East Block in which are the offices of the Privy Council, the Governor-General, the State, Finance and Justice Departments. It will be built of Nepean sandstone, the material of which the departmental buildings are constructed. The building will have an elevation of six stories on the front and of eight stories on the opposite, or Sussex St. side. It will have a length of almost 600 ft., or two city blocks, a width of almost 200 ft., and will contain about 600,000 ft. of floor space.

WINNIPEG, MAN.—Bids will be received by the Board of Control until May 11 for the erection of two fire stations and a drill tower. Plans and specifications are at the office of W. Mellville, Arch., 813 Union Bank Bldg., Winnipeg.

WINNIPEG, MAN.—Joseph M. McCrevey, of Winnipeg, has taken out a permit to erect a 3-sty store and office building on the northwest corner of Princess and Notre Dame Sts., to cost $70,000. The contract has been let to THOMAS KELLY & SONS, of Winnipeg. The architect is G. W. Northwood, Northern Bank Bldg., Winnipeg. The building will have a frontage of 120 ft. on Princess St. and will run back for 110 ft.

WINNIPEG, MAN.—H. Radford, Winnipeg, is having the plans prepared for the erection of a $75,000 apartment block on the north side of Wellington Crescent. J. A. Atchinson is Arch., Toronto Bank Bldg., Winnipeg.

MEXICO CITY, MEXICO.—The National Railways of Mexico is having plans prepared for a general office building and terminal station to be erected in this city. J. S. Hall, Arch., is commissioned by the company to prepare the plans. It is stated that it will be several months before the plans are finished as the several departments of the Government railway system must be consulted in regard to various features of the proposed building and station. At present the several railroads entering Mexico City belonging to the National Railways of Mexico have their own stations and terminals. These include the old National, the Mexican Central, the Interoceanic and the Hidalgo & Northeastern. It is claimed that by concentrating these several terminals into one station and directing the affairs of the several lines composing the system from one set of general offices a great saving in cost of operation and maintenance can be had. The location for the proposed central station and terminals is said to have been selected, but, pending final negotiations for the property, public announcement of its situation is withheld. The architect has also prepared the preliminary plans for the terminal buildings that are being erected at Vera Cruz by the Vera Cruz Terminal Co. at a cost of about $6,000,000.

WATER-SUPPLY—IRRIGATION.

(denotes that this work is advertised in Engineering News.)*

GUILFORD, ME.—CHARLES N. TAYLOR, of Wellesley, Mass., has been awarded contract by the Guilford Water Co., J. S. William, Pres., for the construction of a complete water system for the village at $65,000.

*NEWTON, MASS.—We are o..cially advised that bids were received as follows on April 15 by the Metropolitan Water and Sewer Board, Boston, for constructing a pressure tunnel and laying water mains, etc., for the Weston aqueduct supply main in Newton. Length of pressure tunnel is about 1,900 ft. and 6 ft. 4 ins. in diameter inside the concrete lining. Work consists of laying about 500 ft. of 80-in. steel pipe line covered with concrete on the outside and lined with mortar, and laying about 930 ft. of 60-in. c.-i. pipe line for the Weston aqueduct supply main in Newton. The work also includes about 950 cu. yds. of top soil excavation, 910 cu. yds. of top soil surfacing, 5,530 cu. yds. of earth excavation and 1,700 cu. yds. of rock excavation in open trench, refilling trenches and building embankments with 8,900 cu. yds. of material, crushing 7,500 cu. yds. of stone, 2,300 cu. yds. of concrete masonry in tunnel and 500 cu. yds. in open trench, 50 cu. yds. of brick masonry and 200 cu. yds. of cement grout in tunnel: Joseph Hanreddy, 79 Dearborn St., Chicago, Ill., $102,150; Coleman Bros., Chelsea, Mass., $105,201; Bruno & Petitti, Boston, $105,277; Patrick McGovern, Boston, $113,847; D. F. O'Connell, Boston, $115,681; Luke D. Mullen, Boston, $115,834; Peter F. Connolly, Jamaica Plain, Mass., $120,914; Jones & Meehan, Boston, $127,509; John J. Falvey, Somerville, Mass., $130,629. Dexter Brackett is Ch. Engr. W.-Wks. Itemized list of bids is given under Contract Prices.

WATUPPA (Fall River post-office), MASS. —The Water Board on April 22 opened bids as follows for furnishing a new high-duty pump for the pumping station: Henry R. Worthington Co., 115 Broadway, New York, horizontal high-duty triple-expansion condensing pump, $33,000, including foundation with an allowance of $1,000 for old Davidson pump; William Todd Co., Youngstown, Ohio, vertical triple-crank and fly-wheel pump, $42,400; horizontal compound high-duty pump, $23,680; Allis-Chalmers Co., Milwaukee, Wis., horizontal cross-compound crank and fly-wheel condensing pump, $17,800; Hooven Owens Rentschler Co., Hamilton, Ohiot, horizontal cross-compound crank and fly-wheel, $21,750; Epping-Carpenter Co., 90 West St., New York, horizontal-duplex plunger pump, $9,800; the Platt Iron Works Co., Dayton, Ohio, horizontal cross-compound crank and fly-wheel, $21,948; vertical cross-compound crank and fly-wheel, $32,776; vertical triple-expansion self-contained crank and fly-wheel, $43,336. An allowance of $800 on either of the above prices will be allowed for the old Davidson pump Nordberg Mfg. Co., Milwaukee, Wis., horizontal cross-compound condensing pump, $19,465.

*NEW BRITAIN, CONN.—Bids are asked until noon, May 17, by the Board of Water Commissioners for laying about three miles of heavy c.-i. high-service piping, 20-in. to 12-in., with valves and hydrants, and for a 3,000,000-gallon reservoir to be located on high land within the city limits. Percy M. Black is Ch. Engr.

NEW YORK, N. Y.—Bids were received as follows on April 28 by the Board of Water Supply for Contract 34, for water mains at the Jerome Ave. pumping station, Boro. The Bronx: Fox-Hennessy Co., 31 East 125th St., New York, $26,359; F. V. Smith Contracting Co., $30,244; Terry & Trench, $32,880; George B. Fry, $39,251; Henry E. Fox, $28,083; T. M. McLeol Co., $34,475; Merrill Ruckgaber, $30,356; F. N. Lewis, $28,493; N. E. Construction Co., $35,482.

NEW YORK, N. Y.—Bids are asked until 2 p. m., May 18, by Henry S. Thompson, Com. Water Supply, Gas and Electricity, for hauling and laying water mains and appurtenances in the Borough of Brooklyn.

NIAGARA FALLS, N. Y.—Bids will be received by the city until May 20 for the construction of the proposed filtration plant.

BUFFALO, N. Y.—The Aldermanic Water Committee on April 21 voted to report in favor of awarding contract to the Holly Mfg. Co., Roberts Ave., near Clinton St., Buffalo, for five 30,000,000-gallon vertical triple-expansion steam pumps for the new water-works pumping station at $674,769.

The Northern Engineering Co., of Detroit, was recommended for award of contract for supplying a 30-ton electric traveling crane at $9,950. F. G. Ward is Comr. Pub. Wks.

Contract was awarded by the Board of Aldermen on April 25 to FARRAR & TREFTS, 60 Perry St., Buffalo, for furnishing eight 750-HP. water-tube boilers for the new pumping station at $185,000.

PLAINFIELD, N. J.—The citizens on April 19 voted in favor of purchasing the present water-works or constructing a municipal plant.

GLEN GARDNER, N. J.—Bids will be received until 3.30 p. m., May 14, by the Board of Managers, New Jersey Sanatorium for Tuberculous Diseases, A. L. Beavers, Secy., for constructing an 8-in. artesian well, capable of supplying not less than 75,000 gallons per 24 hours. Dr. Samuel B. English is Supt.

TRENTON, N. J.—The Ocean Township Water Co., which will construct and operate water-works in Ocean Township, Monmouth County, has been chartered by the Secretary of State. It has an authorized capital stock of $100,000 and its headquarters are in Camden. The incorporators are: George Reynolds, of Burlington; S. Howard Troth, of Riverton; Ephriam Tomlinson, of Camden; William I. Tomlinson, of Camden, and William H. Roth, George M. Bunting and H. Bayard Hodge, of Philadelphia.

BERLIN, MD.—The City Council has decided to extend the water-works and electric light system. Bonds for $15,000 will be issued. Orlando Harrison is Mayor.

BALTIMORE, MD.—Bids for the construction of the new pumping station of the Fire Department pipe line were opened by the Board of Awards on April 27. The Noel Construction Co., German and Calvert Sts., Baltimore, was the lowest bidder at $115,000, which was $15,000 under the next lowest bidder. Other bidders were: Daniel E. Evans, $132,000; Benjamin F. Bennet, $133,351; Charles Stockhausen, $132,000; Henry Smith & Sons Co., $134,000; John Waters, $138,228. B. T. Fendall is City Engr.

ORANGE, VA.—J. T. McMAHON, Norfolk, Va., has been awarded contract by the city for the installation of a water-works for this city. The work includes a 100,000-gallon stand-pipe, pipe line, necessary for complete water-works, at $25,073. Bids were opened on April 22.

WILLIAMSON, W. VA.—The city has voted $47,000 of bonds for the improvement of water-works.

MARTINSBURG, W. VA.—The Board of Public Affairs has awarded contract to H. C. BROOKS CO., Clarksburg, W. Va., for improvement and extension of water system, except valves and plugs, at $17,970, and to R. D. WOOD & CO., Philadelphia, Pa., for furnishing about 50 fire plugs. Improvements will include the laying of 7¾ miles of new water mains and replacing three miles of cement pipe. Henry H. Hess is City Engr.

*ASHEVILLE, N. C.—Bids will be received at the office of the City Clerk until May 13 for waterproofing a 5,000,000-gallon concrete reservoir, built by the Faragher Engineering Co. For full information apply to B. M. Lee, City Engr. J. A. Campbell is Mayor.

EASLEY, S. C.—The city has voted $29,500 of bonds for the construction of a water and electric-light plant.

FLORENCE, S. C.—Contracts for certain extensions to water-works have been awarded as follows: Laying pipe, taking up old pipe and making connections, to JOHNSON & MATTHEWS CONSTRUCTION CO., Florence, at $4,939; furnishing c.-i. pipe and specials f. o. b. cars Florence, to AMERICAN C. I. PIPE & FOUNDRY CO., Birmingham, Ala., at $26.50 per ton for pipe and $55 per ton for specials; total, $13,101; furnishing hydrants, valves, valve boxes, f. o. b. cars, Florence, to COLUMBIAN IRON WORKS, Chattanooga, Tenn., at $1,216; and furnishing air compressor (or deep well pump) machinery, f. o. b. cars, Florence, to INGERSOLL-RAND CO., 11 Broadway, New York, at $2,435. Bids were opened on April 18. J. N. Johnston, of Florence, is Engr.

FORT OGLETHORPE (Savannah post-office), GA.—Bids will be received until May 9 by Capt. George Vidmer, Constructing Q. M., U. S. A., for constructing a water distributing system at Fort Oglethorpe.

JACKSONVILLE, FLA.—Bids will be received by the Trustees of the Water-Works and Improvement Bonds, W. M. Bostwick, Jr., Chn., until June 6 for a 3,000,000-gallon covered reinforced concrete reservoir. R. N. Ellis is Supt. W.-Wks.

PENSACOLA, FLA.—The City Council has authorized the construction of one additional mile of water mains. Estimated cost, $4,100. L. Earle Thornton is City Engr.

TALLADEGA, ALA.—The city has employed J. C. McCrary & Co., Candler Bldg., Atlanta, Ga., as engineers in charge of construction of the system of piping water from Talladega Creek in mountains and will install a filtering plant.

BIRMINGHAM, ALA.—The city will construct a new reservoir of 5,000,000 gallons capacity as a surety against a possible water famine. Bids will be asked soon for the construction of the standpipe.

RIVERSIDE, ALA.—The Riverside Development Co. will spend about $15,000 for constructing a water-works system. Bids are asked until May 26 for the construction of reservoir, 500 gallons per minute capacity, installation of machinery, including pumps, boilers, concrete or sheet-iron stand-pipe, etc. H. C. Alford, 510 Empire Bldg., Birmingham, Ala., is Engr.

LORAIN, OHIO.—Bids will be received by the Director of Public Service until noon, May 26, for furnishing the necessary labor and materials for the improvement of the water-works system, by furnishing and laying a new 48-in. c.-i. or 51-in. steel intake pipe from the present filter-house to a point about 2,800 ft. in Lake Erie; furnishing and placing the necessary specials, valves and fittings; furnishing and placing a new intake crib, together with the necessary excavating, filling, etc. L. B. Johnston is Clk.

LAPORTE, IND.—Bids will be received at the office of J. Vene Dorland by the Board of Water Commissioners until noon, May 9, for the excavating and back-filling of about 6,500 lin. ft. of water main trench. Specifications and further information can be had at Mr. Dorland's office.

BLOOMINGTON, IND.—The Indiana University, John W. Cravens, Secy., will receive bids until May 10 for the construction of an independent water-works system. Plans call for a dam of earth with a concrete core and a full line of equipment.

BOONVILLE, IND.—Contract for constructing water-works, lake and pipe line, bids opened April 20 by the Water Committee, has been awarded to FOSTER & RAISER CONSTRUCTION CO., of Union City, at $18,865. G. Schreiber is Secy.

FORT WAYNE, IND.—Contract for furnishing 150 tons of water main pipe was awarded on April 20 by the Water Department to AMERICAN PIPE & FOUNDRY CO., Kansas City, Mo., at $25 per ton of 2,000 lbs.

AURORA, ILL.—Bids will be received until May 6 by the Board of Public Works for drilling and casing a deep well, approximate depth 2,250 ft., not less than 16-in. to depth of 200 ft., and to finish not less than 8-in. T. D. Stinson is Supt. Water Dept.

The citizens have voted to issue $50,000 of bonds for water-works improvements.

*STEGER, ILL.—Bids are asked by George F. Steger, Pres. Bd. Local Improvements, until 7.30 p. m., May 16, for the construction of a combined system of water supply mains in certain portions of the village, with the necessary hydrants, connections and fittings. H. B. Rance is Secy.

MILWAUKEE, WIS.—Contract for repairing intake crib in Lake Michigan, bids opened on April 22, has been awarded to W. H. GILL, 902 Summit Ave., at $6,960.

CORYDON, IOWA.—The citizens on April 11 voted to issue $45,000 of bonds for the construction of a water-works and a sewer system.

CALEDONIA, MINN.—Bids will be received until 7.30 p. m., May 7, by Charles A. Dorival, Village Clerk, for furnishing f. o. b. Caledonia a double-action pump head, pump, pump rods, well pump and a 20-HP. stationary pump engine.

FORT RILEY, KAN.—Contracts have been awarded as follows for the construction and completion of a boiler house at Fort Riley: J. T. DALTON & SONS, Junction City, Kan., boiler house, new pit and stack, $16,230; SNOW STEAM PUMP WORKS, Buffalo, N.

Y., pump, $16,350; W. W. COOK & SON, Junction City, water pipe line, $19,800; A. D. GRANGER & CO., New York, boiler and accessories, $4,785.

MILFORD, NEB.—The city proposes to issue about $18,500 of bonds for constructing water-works and electric light plant.

*FORT MEADE, S. DAK.—Bids, in triplicate, are asked by the Constructing Q. M., U. S. A., until 10 a. m., June 1, for constructing concrete dam and clearing reservoir site, in connection with Fort Meade water-system.

ST. LOUIS, MO.—Bids for water extension contracts were opened on April 19 by the Board of Public Improvements. The lowest bidders were: Water pipe, Dimmick Pipe Co., $52,437; special castings, Bessemer Foundry & Machinery Co., $12,428; stop valves, Roe Stephens Mfg. Co., $4,395; fire plugs, American Foundry Co., $17,825; laying water pipe, John O'Donnell, $18,040. The pipe-laying contract includes 43,000 ft. of 6-in. pipe, 15,000 ft. of 12-in. main, 4,700 ft. of 20-in. pipe, the installation of 158 fire plugs and taking up of 4,800 ft. of 6-in. main.

ALICE, TEX.—The city has voted $15,000 of water-works bonds.

TEMPLE, TEX.—The Board of Municipal Water Commissioners will soon advertise for bids for the construction of a filtering plant here to have a capacity of 2,000,000 gallons every 24 hours and a clear water well of 500,000 gallons capacity. N. Woernskold is Engr.

BROKEN ARROW, OKLA.—The city has voted $37,000 of bonds for the construction of water-works.

CHEROKEE, OKLA.—See item under Light and Power Plants.

WETUMKA, OKLA.—See item under Light and Power Plants.

FAIRFAX, OKLA.—See item under Sewerage.

FORT COLLINS, COLO.—JOSEPH FINGER, of Fort Collins, has been awarded contract for constructing a storage reservoir on Bingham Hill, to have concrete sides and bottom and either concrete or frame roof, and a capacity of 5,000,000 gallons at $42,800. Bids were opened on April 14.

DENVER, COLO.—We are officially advised that the Grand Valley Fruit & Water Co., a corporation owning large tracts of fruit land in Utah, has engaged the Hampson-Fielding Engineering Co., of Denver, to prepare plans and specifications for the construction of a power plant for irrigation purposes. Approximately 3,000 water HP. will be required.

DELTA, COLO.—Maps were filed on April 16 with the County Clerk showing plans for a large new irrigation district. It extends from a point northwest of Delta to another point near Grand Junction on the Gunnison River. It will be 105 miles long and irrigate 106,000 acres of land. The president of the new company is J. A. Wright, of Denver. The completed project will cost $3,500,000.

CHINO, CAL.—Dessery & West, Union Trust Bldg., Los Angeles, Cal., have completed surveys for an irrigation system for the American Beet Sugar Co., of Chino.

SAN FRANCISCO, CAL.—Contract for the c.-i. pipe specials, consisting of joints, crooks, curves, elbows, etc., to be used in the auxiliary water system for fire protection has been awarded by the Board of Public Works to the ENTERPRISE FOUNDRY CO., of San Francisco, at $89,000. The specials are to be largely made to order, which will allow the department to commence work laying pipe within a few days. The first district to be served will be north of Market and east of Powell Sts., work being initiated at several places at one time. It will be done by contract, for which bids will be asked. Enterprise Foundry Co. was the only bidder.

OAKLAND, CAL.—Bids are asked by the Board of Public Works until 10 a. m., May 18, for labor and material for the construction of Section 3 of the pipe system of the high-pressure fire system. Walter B. Fawcett is Secy.

THEODORE, UTAH.—Bids have been opened by the Upper Blue Bench Irrigation District at Theodore for constructing main irrigating canal from Rock Creek to the eastern edge of the Blue Bench, a distance of about 13.56 miles. The only bid received was that of the Gillis Construction Co., of Salt Lake City, at a lump sum bid of $192,000 in cash, or $320,000 in bonds. This bid was rejected as excessive. Edward F. Harmston is Engr., Roosevelt, Utah.

TORONTO, ONT.—The Board of Control on April 20 awarded contracts for iron pipe as follows: To the NATIONAL IRON WORKS, 3-in. iron pipe, $4.35 per length; 4-in., $4.88, and 6-in., $6.97; CANADA FOUNDRY CO., 8-in. iron pipe, $10.50; 10-in., $14.80, and 12-in., $19.85 per length.

SASKATOON, SASK.—See item under Sewerage.

MEXICO CITY, MEX.—Bertus Bernhard is promoting the project of reclaiming the rich land of the bottoms of a number of lakes in Mexico. He has obtained a concession from the Federal Government for the purpose and plans to drain the lakes by digging canals and to colonize the land for agricultural purposes.

The Municipal Engineering Department has submitted to the government plans and specifications for the work that is still necessary in order to complete the new water-works system here, together with an estimate of the cost. It is stated that in addition to the $10,000,000 Mexican money that have already been expended it will require $6,500,000 to lay the water mains throughout the city and to make connections with the buildings that are to be served. It is officially announced that it will take at least two years to complete the works.

CHIHUAHUA, MEX.—The COMPANIA BANCARIA DE BIENES RAICES, S. A., of Mexico City, has been given the contract for the construction of a new settling tank and the elevation of the present ones for the water-works system; the laying of new water mains from the city's pumping plant to the new public fountains; the erection of a garbage crematory; the construction of about 2,000 ft. of additional outfall sewer, and the construction of drainage systems on two of the streets. The cost of these several public improvements will aggregate about $350,000 gold. This company recently finished the construction of 23 kilometers of sewers and the same amount of water mains in this city.

VERA CRUZ, MEX.—The Federal Government has been asked to make an appropriation of $3,000,000, Mexican money, for the construction of a complete and modern system of water-works for the city of Vera Cruz. The proposition was recently presented to the federal authorities in Mexico City by a committee, consisting of Mayor Rafael Alcolea, Francisco Moreno, Manuel Zamora and Dr. Sabino Casarin. Engineers are now preparing plans and specifications for the proposed system. The firm of Vasquez & Stewart, of this city, has submitted an offer to supply the city with a sufficient supply of water by building a gravity pipe line from the springs of Puente Nacional. The estimate of the cost of the proposed system, made by this firm, is $2,990,154.

PACHUCA, MEX.—The Hoyos Estate of Pachuca has had plans prepared for the construction of a large dam upon its ranch in this state. The dam will be built of solid masonry. It will be 300 meters long and about 30 meters high, and will cost about $100,000. The purpose of the dam is to store water for irrigation purposes, it being planned to reclaim 10,000 acres of land by the construction of a system of canals and ditches leading from the water storage reservoir.

SEWERAGE.

(* *denotes that this work is advertised in Engineering News.*)

MANCHESTER, N. H.—The City Council has voted to issue $100,000 of bonds for permanent highway and sewer improvements.

BOSTON, MASS.—The City Council has passed and the Mayor has signed the revised charter act providing for the construction of sewerage works within the watershed of Charles River. Estimated cost, $674,000.

BRISTOL, R. I.—The citizens on April 22 voted to extend the sewer system to completion and to issue $35,000 of bonds for the purpose.

HARTFORD, CONN.—BERARDINO, SILVESTERI & CONTI, Hartford, have been awarded contract by the city for the construction of the John St. and Howard St. sewers. Contract calls for about 1,000 ft.

WATERTOWN, N. Y.—The citizens on April 18 voted to issue $33,000 of bonds for constructing sewers in the First Ward and for paving High St. E. W. Sayles is City Engr.

NEW YORK, N. Y.—We are officially advised that E. A. MATTHEWS, 13 Park Row, New York, has been awarded contract by the New York Central R. R. Co., for the construction of a reinforced concrete sewer pile foundation at 158th St. and Harlem River, 1,236 ft. long, 4 ft. diameter, at $25,000, including excavation and refill.

PATERSON N. J.—Bids will be received by the Board of Public Works at the office of John T. Butt, Street Comr., until May 17 for constructing the Lake View sewer. About 2,660 ft. of 36-in. pipe, 1,140 ft. of 30-in. pipe, 2,500 ft. of 24-in. pipe, 1,409 ft. of 18-in. pipe, 600 ft. of 15-in. pipe and 1,300 ft. of 10-in. pipe and about 6,800 ft. of 6-in. house-connections. H. J. Harder is City Engr.

TRENTON, N. J.—The City Council has awarded the following contracts for sewers: GIBBS & MORGAN, for sewers in Exton Ave. and Hillcrest, Woodside and Mercer Aves.; GUISEPPI BOSCORELLA, Hewitt St.; ANTONIO DE LUCIA, Stuyvesant and East Stuyvesant Aves., and Prospect and Marlan Sts.

NEWARK, N. J.—Bids are asked by the Board of Street and Water Commissioners until 3.15 p. m., May 5, for the construction of the Commercial St. sewer and the South Twelfth St. sewer.

*HACKENSACK, N. J.—Bids are asked by the Hackensack Improvement Commission until 8 p. m., May 20, for sewers in Central and Railroad Aves. Jacob Bauer is Secy. For details see advertisement in this issue.

*BRIDGETON, N. J.—Bids are asked until noon, May 17, by the City Council for furnishing all material and doing all work necessary to the complete construction of about 3.2 miles of vitrified pipe sewers, from 8 to 24 ins. in size, with Y branches, manholes, flushing manholes and other necessary appurtenances, and of a sewage disposal works and pumping station, including the necessary piping, grading, etc. Plans may be seen and specifications and forms of proposal obtained at the office of Jacob B. Jones, City Clk., or at the office of Clyde Potts, 30 Church St., New York.

NORRISTOWN, PA.—We are officially advised that contracts were awarded on May 3 by the Borough Council to JAMES McGINNIS (American Sewer Pipe Co.) for all sizes of vitrified sewer pipe at the following prices: 6-in., 8½ cts.; 8-in., 15 cts.; 10-in., 22 cts.; 12-in., 29 cts.; 15-in., 49 cts.; 18-in., 64 cts.; 20-in., 87 cts.; 22-in., $1.10; 24-in., $1.25, 30-in., $2.25, and 36-in., $3.50 per lin. ft., all sizes down to 12-in to be double strength except 30 and 36-in., which are to be standard. S. Cameron Corson is Boro. Engr.

DORRANCETON, (Wilkes-Barre post-office), PA.—Bids are asked by the Town Council until 8 p. m., May 17, for the construction of pipe sewers and appurtenances in the First and Second Wards. The work consists of the following: 21,120 ft. 8-in., 1,720 ft. 10-in., 300 ft. 12-in., 380 ft. 15-in., 690 ft. 18-in. sewer, and approximately 24,000 ft. of 6-in. house connections and 48 manholes. F. L. Olds is Chn. Sewer Com.

PRINCETON, W. VA.—Bids are asked by the city until June 8 for the construction of sanitary sewers. Estimated cost, $30,000. F. R. Van Antwerp is Ch. Engr.

CHARLOTTE, N. C.—GUILD & CO., of Chattanooga, Tenn., have been awarded contract for the construction of a sewerage system here.

REIDSVILLE, N. C.—The city has awarded contract to H. M. GARVEY and JOHN L. O'CONNOR, both of Knoxville, Tenn., for constructing about ten miles of vitrified-pipe sewer from 8 to 15-in. diameter, three sewage pumping stations and reduction tank. Estimated cost, $42,000; E. W. Myers is Engr., Greensboro, N. C.

SANFORD, N. C.—Bids will be received by the Mayor and Board of Aldermen until 8 p. m., May 17, for building a system of sewerage which will consist of about seven miles of pipe sewer from 8 ins. to 20 ins. diameter and appurtenances and a concrete settling tank. Gilbert C. White is Engr., Durham, N. C.

MACON, GA.—Bonds for $20,000 were sold on April 21 for paving and the construction of sewers.

ST. PETERSBURG, FLA.—All bids opened on April 14 for the construction of sewer system No. 12 have been rejected. New bids will be received until May 5.

VICKSBURG, MISS.—The City Council has appropriated $8,000 additional for the completion of the sewerage system. J. J. Hayes is Mayor.

SHREVEPORT, LA.—Bids are asked by the city until 5 p. m., May 10, for the construction of storm sewers in various streets. C. G. Reeves is Controller. Estimated cost, $40,000.

*LOUISVILLE, KY.—B. C. Milner Sons Co., of Louisville, submitted the lowest bid to the Commissioners of Sewerage on April 15 for the construction of sewers in 15th and 23d Sts., at $20,000.

LIMA, OHIO.—NELSON F. STEDCKE, Second St., Lima, has been awarded contract by the city for the construction of a sewer from Third St. to the south corporation line by way of Blaine Ave., Fourth and Metcalf Sts. Bids were opened on April 14.

CINCINNATI, OHIO.—Bids will be received until noon, May 6, by the Board of Public Service, John J. Wenner, Clk., for constructing a main and lateral sewer and drains, etc., in a portion of Beechwood Ave. and a right-of-way from Beechwood Ave. Bids will be received until May 9 for constructing main and lateral sewers, etc., in Montana and Craig Aves., Westwood.

LORAIN, OHIO.—FARAGHER & RANDALL have secured contract, it is reported, for constructing an extension to the Oberlin Ave. storm sewer, to be of brick, at $26,736.

COLUMBUS, IND.—The City Council has ordered plans for the construction of a new trunk sewer and the widening of Haw Creek from Maple Grove to White River. Bids will be asked soon.

LANSING, MICH.—The following bids were opened on April 18 for the construction of about 8,700 ft. of sewers: W. H. McHale, $43,500; Farrell Bros., $43,000; M. E. Fitzpatrick, $40,888; J. H. Algate, $38,564, all of Lansing.

MENOMINEE, MICH.—Bids will be received by the city until 5 p. m., May 9, for furnishing the materials and doing the work in constructing sewers upon the following named streets: Michigan Ave., from McCullough St. to Ingalls St.; in Ingalls St., from Michigan Ave. to Spies Ave.; in Myrtle St., from Ogden Ave. to Dunlap Ave. Fred S. Norcross is City Clk.

NORTH CRYSTAL LAKE, ILL.—Hugh M. Price, 1207 Hartford Bldg., Chicago, Ill., has been selected to prepare plans for a sewer system and purification works. Estimated cost, $25,000.

CENTERVILLE, IOWA.—GUY F. SMITH, Indianola, has been awarded contract for laying 3,747 ft. of sewer here, at $3,021.

EMPORIA, KAN.—The citizens on April 21 voted to issue $11,000 of bonds for the extension of storm water sewers. Alva J. Smith is City Engr.

ABERDEEN, S. DAK.—Bids will be received until May 23 by F. W. Raymond, City Audr., for constructing about 5,000 ft. of 10-in. and 600 ft. of 12-in. pipe sewers and 13 manholes.

KANSAS CITY, MO.—The Board of Public Works, it is reported, was restrained by the injunction on April 15 from opening bids for the proposed Brush Creek sewer. Estimated cost, $250,000. Work on this sewer will now be indefinitely postponed.

MORRILLTON, ARK.—Bids will be received until noon, May 16, by M. A. Metzger, Secy. Sewer Dist. No. 1, for constructing 3½ miles of sanitary sewers and a septic tank. Estimated cost, $18,000. Lund & Hill are Engrs., Little Rock, Ark.

MADILL, OKLA.—Bids will be received by J. S. Dillingham, Town Clk., until May 9 for a sewer system from plans of the Southwestern Engineering Co., of Oklahoma City.

ENID, OKLA.—The city has awarded contract, it is reported, to WILLIAMS & SON, of Enid, for sewer construction.

FAIRFAX, OKLA.—The city contemplates the construction of a sewerage system and water-works. Estimated cost, $50,000. Harry S. Buford is City Clerk.

GUTHRIE, OKLA.—Bids for constructing the West Side storm sewer system were opened by City Council on April 21 as follows: H. D. Durbin, $12,537; W. F. Power, $11,629; Irving Shaw, $11,590.

OKLAHOMA CITY, OKLA.—Bids will be received at the office of Bob Parman, City Clk., until 5 p. m., May 9, for the construction of an extension of the Walker Ave. storm sewer from Elm St. to the Canadian River; main storm sewer in F... main storm sewer in McKinley ... storm sewer beginning at a culv... sen Boulevard between 24th an... northeast to 25th St., east on ... Military Ave.; storm sewer ... Ave.

CHEROKEE, OKLA.—See item ... and Power Plants.

MONROE, WASH.—Contract for ... system here has been awarded by ... cil to the EVERETT CONSTRUC... of Everett, Wash., at $12,680, ... the engineer's estimate. Bids w... on April 13. A. L. Root is City ...

SEATTLE, WASH.—No bids were ... ted to the Board of Public Work ... 21 for the construction of the La... ington section of the North Tru... system, and new bids will be ask... plans call for the construction of ... of the system lying between the U... of Washington and Leschi Park. ... Engineering Department estimates ... at $1,250,000. The north trunk sew... tem is divided into four sections, ... tracts for two of these having been ... last year. The total cost will be ab... 000,000. R. H. Thomson is City En...

HAILEY, IDAHO.—We are offici... vised that Louis C. Kelsey, Co... Engr., 402 Dooly Bldg., Salt Lak... Utah, has been employed to design ... perintend the construction of a se... system here. Estimated cost, $50,000.

BRIDGEBURG, ONT.—Bids are ask... til noon, May 16, by John H. Atwood, ... care of the Clerk, Bridgeburg, for furn... material and construction of about ... lin. ft. of vitrified pipe sewers from ... 24-in. diameter; also septic tanks of ... cu. ft. capacity, together with laying ... lin. ft. of outlet in the Niagara River and various sewer appendages. George Ross is Engr., Welland.

SAINT BONIFACE, MAN.—The City Council, it is reported, has appropriated $12..., for the construction of a trunk sewer in Ward 1 from the Exhibition Grounds to the Red River.

SASKATOON, SASK.—The SASKATOON CONSTRUCTION & ENGINEERING CO. has been awarded contract for three sections of the contract for furnishing necessary labor and material for laying water mains and sewer pipes and furnishing materials included at $64,485.

REGINA, SASK.—The city proposes to expend about $280,000 this year for sewers. A. E. Chevers is City Clk.

GARBAGE DISPOSAL.

(* *denotes that this work is advertised in Engineering News.*)

LONG ISLAND CITY (L. I.), N. Y.—The Superintendent of Street Cleaning of Queens Borough has notified the Progress Society of Far Rockaway that he will begin next fall to build an incinerator to consume all the garbage in the Rockaways. The garbage at present collected in the Rockaways is taken to Barren Island and this will be continued until the new plant is built.

WEST POINT, N. Y.—The following bids were opened on April 15 at the office of the Quartermaster, U. S. A., for garbage crematory: (a) construction building proper, (b) crematory with steel stack, (c) crematory with brick stack, (d) building and crematory with steel stack complete, (e) building and crematory with brick stack complete: Morse-Boulger Destructor Co., 39 Cortlandt St., New York, (a) $2,700, (b) $2,900, (d) $5,600; Lewis & Kitchen, Kansas City, Mo., (a) $3,100, (b) $3,585, (c) $4,785, (d) $6,685, (e) $7,885; Dixon Engineering & Construction Co., Toledo, Ohio, (a) $4,325, (b) $4,724, (c) $6,164, (d) $9,024, (e) $10,464; E. A. Matthews, 13 Park Row, New York, (a) $4,000; Alamo Construction Co., 215 West 125th St., New York, (a) $3,250, (d) $10,500.

TARENTUM, PA.—The Borough Council on April 25 awarded contract to the TARENTUM REDUCTION CO. for collecting and disposing of garbage.

COLUMBUS BARRACKS, OHIO.—Bids will be received until May 25 by Capt. H. J. Hirsch, Constructing Q. M., U. S. A., for constructing a crematory building and construction and erection of a garbage crematory at this post.

STREETS AND ROADS.

(* *denotes that this work is advertised in Engineering News.*)

*ROCKPORT, ME.—Bids are asked by Paul D. Sargent, State Comr. of Highways, Augusta, Me., until 2 p. m., May 24, for constructing 5.4 miles of state road in the city of Rockland and town of Rockport.

MANCHESTER, N. H.—See item under Sewerage.

CONCORD, N. H.—Bids are asked until 1 p. m., May 20, by H. C. Hill, State Engr., for the following native stone paving: In Tilton, 8,000 ft.; in Raymond, 2,000 ft.

HARTFORD, CONN.—Bids are asked by the State Highway Commissioner until 2 p. m., Tuesday, May 17, for the construction of state road work as follows:

Town of Colebrook, 9,685.9 lin. ft. gravel on the Norfolk Road, including three 20-in., four 24-in., six 15-in. and three 18-in. tile culverts. Plans and specifications with J. A. Deming, First Selectman, Robertsville.

Town of Winchester, 6,770 lin. ft. gravel on the Norfolk Road, including six 20-in., four 15-in. and three 24-in. tile culverts. Also 10,750 lin. ft. macadam on same road, including six 20-in., ten 15-in., five 18-in. and three 24-in. tile culverts. Plans and specifications with Edward Finn, First Selectman, Winsted.

Town of Ridgefield, 1,200 lin. ft. of macadam on Main St. Plans and specifications with B. F. Crouchley, First Selectman.

Town of Brookfield, 11,040 lin. ft. combination gravel on the New Milford Turnpike, including three 15-in., three 20-in.,

three 2[illegible]-in., one 12-in. and one 18-in. tile culver[illegible]

Town [illegible] New Milford, 3,660 lin. ft. combinatio[illegible] gravel on the Brookfield Road, including [illegible] two 18-in. tile culverts. Plans and specifi[illegible]ons with S. C. Beach, First Selectma[illegible]

HAR[illegible]ORD, CONN.—The contract for state [illegible] work, bids for which were received April 25, have been awarded as follow[illegible] Town of Mansfield, 3,050 lin. ft. gravel [illegible]d to A. C. STERNBERG & SONS, West [illegible]rtford, Conn., $4.13 per lin. ft. for [illegible], $5 per lin. ft. for telford, $1 per lin. [illegible] rubble drain.

To[illegible] Ledyard, 1,850 lin. ft. grading on the [illegible] Road including one 24-in. tile culv[illegible] to O. T. BENEDICT, Pittsfield, Mas[illegible]800 for grading and 8 cts. per lin. ft. [illegible] for telford; also 3,350 ft. grading on [illegible]edyard Center Road including four 20-in. [illegible] one 15-in. tile culverts, to O. T. BENE[illegible]CT, $8,500; also 3,900 lin. ft. grading [illegible] the Shewville Road, including one 15-in. [illegible] culvert, to EDWARD McKNIGHT, Wes[illegible], R. I., $7,000.

To[illegible] of Old Saybrook, 13,023 lin. ft. mac[illegible]m on the Fenwick Road, including one [illegible]-in. tile culvert, to A. BRAZOS & SON[illegible] Middletown, Conn., $1.44 per lin. ft. for [illegible]adam, $2.14 per lin. ft. for telford.

BRI[illegible]GEPORT, CONN.—Bids will be received by the Paving and Sewer Commission until May 6 for paving on Stratford Ave., from Lower Bridge to Waterview Ave. Bernard Keating is Secy.

NEW YORK, N. Y.—Bids are asked by the Park Board until 3 p. m., May 12, for furnishing and delivering blue limestone screenings in parks and on parkways in the Borough of Brooklyn.

Bids are asked by George Cromwell, Pres. Boro. of Richmond, until noon, May 10, for regulating and repaving with wood block pavement on a concrete foundation the roadway of Canal St., from City Dock to Broad St.; for regulating and repaving with Medina sandstone block pavement on a concrete foundation the roadway of Richmond Ave., from Post Ave. to Blackford Ave., together with all work incidental thereto.

The following bids were received by the President of the Boro. of Brooklyn on April 20 for regulating, grading, paving and curbing and laying sidewalks on 41st St., from Sixth Ave. to New Utrecht Ave.: Barber Asphalt Paving Co., 30 Church St., New York, $27,424; Hastings Pavement Co., 25 Broad St., New York, $28,280. Also for regulating, grading, paving and curbing and laying sidewalks on Grant Ave., from Jamaica Ave. to Liberty Ave.: Cranford Co., 207 Centre St., New York, $20,052; Barber Asphalt Paving Co., 30 Church St., New York, $22,454; Uvalde Asphalt Paving Co., 1 Broadway, New York, $20,706; Borough Asphalt Co., 1301 Metropolitan Ave., Brooklyn, N. Y., $20,637.

NEW YORK, N. Y.—Bids are asked by Alfred E. Steers, Pres. Boro. of Brooklyn, until 11 a. m., May 18, for regulating and paving various streets in Brooklyn.

ROCHESTER, N. Y.—The Board of Contract and Supply on April 15 awarded the contract for paving with asphalt on Dewey Ave. to WHITMORE, RAUBER & VICINUS CO., 279 South Ave., at $40,987, and paving with asphalt Hamilton St., to ROCHESTER VULCANITE PAVEMENT CO., Alexander St. and Erie Canal, $9,124.

PORT JERVIS, N. Y.—Bids will be received by John F. Cleary, City Clk., until May 11, for about 11,000 sq. yds. of vitrified brick paving on Pike and Front Sts. and New Jersey Ave.

TROY, N. Y.—Bids will be received until May 6 by the Bd. Contract and Supply for repairing the several asphalt pavements. James M. Riley is Secy.

OLEAN, N. Y.—We are officially advised that bids were received by the Commissioners of Public Works of the city of Olean, N. Y., at the office of George Ball, Supt. of Streets, in the City Building, on May 2, for the construction of a vitrified brick pavement on concrete foundation in South Union St., from the south line of Henley St. to the south line of Green St. The approximate amount of pavement to be laid is 4,100 sq. yds., and the curbing to be set, 1,800 lin. ft. The contract has been let to D. Dennis Dugan, of Olean, N. Y., at $1.74 per sq. yd. for pavement, and 60 cts. per lin. ft. for curb. The Western New York & Pennsylvania Traction will realign its tracks with its own forces.

OLEAN, N. Y.—Bids are asked until 7.30 p. m., May 17, by the Commissioners of West Henley St., for the construction of a vitrified brick pavement on concrete foundation in West Henley St., from the west line of South Union St. to the west line of First St. The approximate amount of pavement to be laid is 1,300 sq. yds., and curbing to be set 800 lin. ft. George Ball is Supt. of Streets.

*ELIZABETH, N. J.—Bids are asked by the County Road Committee of the Board of Chosen Freeholders of the County of Union, at the Court House, Elizabeth, until 2.30 p. m., May 18, for the construction of a stone road on Raritan Road and Lake Ave., extending from Terrill Road to Palisade Ave. in the Townships of Fanwood and Clark. The length of said road is 2.463 miles and the width of stonework 16 ft. Also for constructing a stone road on Madison Hill Road and Palisade Ave. extending from Lake Ave. to Westfield Ave. in the Township of Clark and the City of Rahway. The length of said road is 2.388 miles and the width of stonework 16 ft. F. J. Hubbard is County Engr., 201 Park Ave., Plainfield.

ENOLA, PA.—The contract for constructing the granolithic sidewalks in front of the Enola Realty Co.'s properties in Enola has been let to S. W. SHOEMAKER & SON, of Harrisburg. Sidewalks will be laid in front of eleven properties. In all there will be 62,000 sq. ft. of the paving, entailing a cost of about $25,000.

NEW CASTLE, PA.—Bids were received by the Councils on April 25 for the paving of County Line St. in the Third Ward, from Walnut St. to Ray St. The contract was awarded to J. H. & M. E. MILLER, the bid being $6,708. The other bidders and their bids were as follows: Louis Meyer, $8,522; D. E. Sullivan, $6,855; New Castle Contracting Co., $7,417.

DORMONT, PA.—Bids are asked until 8 p. m., May 6 by the Council of the Borough of Dormont for the improvement of Dormont Ave., from West Liberty Ave. to Dell Ave.; approximately 4,000 cu. yds. grading 2,000 lin. ft. concrete curb and gutter and 1,000 sq. yds. of brick paving. Douglass & McKnight are Boro. Engrs., Union Bank Bldg., Pittsburg.

DENTON, MD.—Bids are asked until noon, May 10, by the Caroline County Commissioners for grading and macadamizing about 3/5-mile of road.

WASHINGTON, D. C.—Bids will be received until May 23 by the District Commissioners for furnishing the following materials during the fiscal year beginning July 1, 1910, and ending June 30, 1911: Granite curbing, asphalt, paving blocks, repressed vitrified invert sewer bricks, repressed vitrified paving blocks, red sewer bricks, Portland cement, terra cotta sewer pipe, miscellaneous castings.

ARLINGTON, VA.—Bids are asked until 11 a. m., May 10, by Capt. H. L. Pettus, Q. M., Depot Quartermaster's Office, Washington, D. C., for Tarvia on roadway in Arlington National Cemetery.

MACON, GA.—See item under Sewerage.

PALATKA, FLA.—Bids are asked until 11 a. m., May 7, by the Board of Trustees for County Bonds, for the construction of a hard surfaced road from the eastern terminus of the highway bridge across the St. Johns River at Palatka, Fla., to the St. Johns County line, and from a point on this road to San Mateo, Fla., ten miles. S. Worden is Secy. of Bd. R. F. Ensley, County Engr.

ATTALLA, ALA.—At a meeting of the Town Council of Attalla, Ala., April 27, bids were opened for the construction of certain sidewalks and combined curb and gutter on Fourth and Fifth Sts. and Fifth Ave. MORRIS & ANGEL, of Sheffield, Ala., the low bidders, were awarded the contract at $8,859. Hill & Campbell, Gadsden, Ala., are Engrs.

VICKSBURG, MISS.—Bids were received on April 18 for 32,870 sq. yds. of paving on Cherry St., and the contract has been awarded to the SOUTHERN PAVING CO., of Chattanooga, Tenn., at $82,391 for asphalt paving. Other bids received were: (a) asphalt, (b) bituilthic and brick, (c) brick, (d) wood block, (e) asphaltic cement: Barber Asphalt Paving Co., Philadelphia, Pa., (a) $83,915; Southern Bitulithic Co., Nashville, Tenn., (b) $90,381; Southern Paving Co., Chattanooga, Tenn., (c) $87,362; Hot Springs Construction Co., Hot Springs, Ark., (c) $85,-929, (d) $99,405; Dunn & Lallande, Birmingham, Ala., (c) $89,024, (d) $105,429; Stevens Construction Co., Chicago, Ill., (a) $88,604, (c) $90,485, (e) $79,089. C. L. Twiss is City Clerk.

SHREVEPORT, LA.—Bids are asked by C. G. Rives, City Controller, until 5 p. m., May 10, for about 220,000 sq. yds. of street paving and 13,600 sq. yds. of alley paving. George R. Wilson is City Engr.

MEMPHIS, TENN.—The City Commissioners have awarded contracts for paving portions of Wellington, Marshall and Seventh Sts. to H. P. STREICHER & CO., St. Clair Bldg., at $14,333.

CINCINNATI, OHIO.—Bids are asked by the Board of County Commissioners until noon, May 20, for Specifications No. 23, for improvement of the Biddinger Pike, from Harrison to Butler County line, in Harrison Township.

COLUMBUS, OHIO.—WILSON & YARDLEY, of Columbus, Ohio, have secured the contract for the construction of the North Starr Ave. pike at their bid of $4,934.

COLUMBUS, OHIO.—Bids will be received here until May 25 by Capt. H. J. Hirsch, Constr. Q. M., for constructing brick paved roads, concrete walks and grading at Columbus Barracks.

CLEVELAND, OHIO.—Bids will be received until May 14 by the Board of County Commissioners for paving Herbert Hill with common Medina block stone. Frank R. Lander is County Surveyor.

YOUNGSTOWN, OHIO.—Bids are asked by the Director of Public Works until noon, May 6, for grading Green St., between Byron and Jackson Sts. W. H. McMillin is Clerk.

WABASH, IND.—Bids are asked by the Commissioners of Wabash, Whitley and Hunting Counties at the Auditor's office in Wabash until May 27 for the construction of a gravel road on the boundary line between Wabash, Whitley and Huntington Counties. J. P. Noftzger is County Audr.

DETROIT, MICH.—Bids will be received until May 9 by M. P. Hurlburt, Comr. Dept. Parks and Boulevards for furnishing f. o. b. Detroit, crushed limestone, limestone screenings, crushed trap rock, asphalt road oil, rock asphalt, cement, etc.

CHICAGO, ILL.—The contract for paving with brick a portion of South Washington St. has been awarded to A. D. THOMPSON, of Peoria, Ill., at $102,000.

BLOOMINGTON, ILL.—The contract for about 15,000 sq. yds. of brick pavement on Madison and Jefferson Sts. has been awarded to I. D. LAIN, of Bloomington. He bid for stone curb 46½ cts. per lin. ft.; Danville vitrified brick, $1.73 and $1.69 per sq. yd.; c.-i. sewer inlets, each $10, and 12-in. vitrified sewer, 40 cts.

JACKSONVILLE, ILL.—Bids are asked until 10 a. m., May 17, by the Board of Local Improvements for the construction of asphalt pavement on West College St., comprising 5,444 lin. ft. of curb and gutter, 7,780 sq. yds. of paving and 2,899 cu. yds. of excavation. Estimated cost, $19,846.

PEKIN, ILL.—JANSEN & ZOELLER, of Pekin, have secured the contract for paving Buena Vista Ave., at $6,251.

BELLEVILLE, ILL.—The Board of Local Improvements has awarded contracts for paving as follows: HOEFFKEN BROS., of Belleville, with Albion brick, Main St., $20,-974; Caseyville Ave., $11,186; Church St., $8,128; and REET BROS., Illinois St., $12,-199; High St., $8,141; and Jackson St., $4,-878.

ELGIN, ILL.—Bids are asked by the Board of Local Improvements until 10 a. m., May 9, for grading and constructing a combined cement concrete curb and gutter on a cinder foundation, six inches thick and grading and paving with vitrified brick on five inches of cement concrete foundation, and otherwise improving the roadway of Walnut Ave., from the westerly line of South State St. to the southerly line of South St.

MANITOWAC, WIS.—The contract for constructing $70,000 worth of brick pavements has been awarded to the SCHUETTE CEMENT CONSTRUCTION CO., of this city. The specifications call for a concrete base, sand cushion and brick wearing surface, stone curbing.

FOND DU LAC, WIS.—Bids will be received until May 11 by the Board of Public Works for furnishing material and improving Merrill and Olcott Sts. by grading and constructing a cement pavement, together with a Portland cement combined curb and gutter. J. S. McCullough is Chn.

IOWA CITY, IOWA.—Bids are asked by O. J. Slater, City Clerk, until 2 p. m., May 6, for paving Jefferson St., and the alleys in Block 66, Iowa City.

RED OAK, IOWA.—We are officially advised that T. S. De Lay, of Creston, Iowa, has been retained to take charge of 36,000 sq. yds. of macadam and 10,000 ft. of concrete curb, to be laid in this city. He desires to communicate with dealers in manholes and other municipal castings.

DULUTH, MINN.—The following bids were received by the Board of Public Works on April 22 for paving: Bitulithic—Diffor & Riches, $46,972; Warren Bros., $47,193; E. A. Dahl, $47,587; Ed. Johnson, $48,563. Brick—Diffor & Riches, $41,832; E. A. Dahl, $42,609; Russell Construction Co., $43,278; E. Johnson, $43,766; Fielding & Sheppley, $44,397. Creosoted block—E. W. Van Hatten, $43,052; Russell Construction Co., $44,-651; E. A. Dahl, $44,840; Kettle River Co., $45,011; Diffor & Riches, $45,084; E. Johnson, $46,331. According to the estimates of the City Engineer, there will be required 17,165 sq. yds. of the paving material on a 5-in. base of concrete; 21,744 sq. yds. of the old cedar blocks must be removed; 320 lin. ft. of concrete curb and 8,408 lin. ft. of old curb to be reset; 1,560 cu. yds. of "borrow"; 900 cu. yds. to handle in reshaping street; and 1,200 lin. ft. of oak headers, 3 x 12.

FREDONIA, KAN.—J. B. Wilson, City Clk., writes that the contract for about 10,-144 sq. yds. of brick paving has been awarded to HARVEY STIVER, of Kansas City, Mo., at $1.89 per sq. yd.

INDEPENDENCE, KAN.—HIPPLE & McSPADDEN, of Vinita, Okla., have the contract for paving the streets on which the Board of City Commissioners received bids on April 21. Out of the four contractors who submitted estimates they were the lowest in each instance. Part of East Locust, East Myrtle and South 15th Sts. are to be paved, the bids and concerns making estimates being as follows for the total: Dellone & Co., $48,414; Hanton & McGuire, $47,205; Johnson & Hiatt, $48,223; Hipple & McSpadden, $45,492.

*BOZEMAN, MONT.—We are officially advised that bids were received by A. M. Brandenburg, City Clerk, on April 7, for the construction of cement sidewalks, curbs, gutters and crosswalks in the city of Bozeman. The contract has been let to S. BIRCH & SONS CONSTRUCTION CO., of Salt Lake City, Utah.

WARRENSBURG, MO.—We are officially advised that the city of Warrensburg will construct nearly four miles of street pavement this summer. Estimates and plans will be made soon. Plans are now being made for district sanitary sewer and septic tank. W. H. Sanders is City Engr.

HOUSTON, TEX.—Bids for paving 35½ miles of county roads in different sections of the county were opened by the County Commissioners on April 21, but no contracts were awarded, action along that line being deferred to give the County Engineer time in which to make the tabulations. The bidders, the amounts bid and the road on which bids were submitted are as follows:

Webster Air Line road, 18 miles in length, running from a junction with the Harrisburg Road south of Harrisburg to the Galveston county line: W. S. Hipp, $59,540; Suderman, Dolson Co., $61,542; Texas Grading Co., $67,341; W. D. Haden, $69,460; M. C. Otto, $75,440. The specifications call for all shell material on this road.

La Porte and Seabrook road, 2½ miles in length, running from a connection with the La Porte shell road toward Seabrook: W. S. Hipp, $9,350; W. D. Haden, $10,725; A. C. Workman, $11,310; Texas Grading Co., $11,-549.

Lynchburg and Crosby roads, three miles in length, to be paved with clam shell and being extension of the present pavement: M. O. Otto, $16,790; John Farmer, $17,875; Texas Grading Co., $19,110; R. V. Tompkins, $19,110.

Main St. road, to be paved with gravel and shell for a distance of eight miles from the terminus of present pavement: W. S. Hipp, $32,960; Texas Grading Co., $36,280; L. R. Davis, $37,295.

Westheimer Road to be paved with gravel and shell for a distance of four miles from the end of present pavement: Texas Grading Co., $16,876; L. B. Davis, $18,720; W. S. Hipp, $19,312.

As shown by the bids, W. S. Hipp is the lowest bidder on the Webster air line, La Porte and Seabrook, and Main St. roads, while M. C. Otto is the lowest on the Lynchburg and Crosby road and the Texas Grading Co. is the lowest on the Westheimer road.

The County Engineer was instructed to furnish estimate of the cost of grading the Barker and Clodine county road.

DENVER, COLO.—The Park Board has received bids as follows for paving: (a) Commonwealth Construction Co., (b) Municipal Construction Co.; District. No. 16, alley between 13th and 14th Sts., from Larimer to Broadway, (a) $9,536, (b) $9,281; District No. 17, Capital Hill District, (a) $18,192 and (b) $17,712.

SPOKANE, WASH.—J. F. HILL, of Chicago, Ill., has secured the contract, it is stated, for constructing about 18 miles of asphalt paving in Spokane, at about $575,-000.

Bids will be received until May 17 by the State Highway Board, Henry L. Bowlby, Secy., Olympia, Wash., for grading, draining, macadamizing, etc., State Aid Road No. 71, known as the Spokane-West Road and Road No. 65-72, known as Sparkle-South Road, both in Spokane County. W. P. Butler is Engr., 226 Hutton Bldg., Spokane.

STOCKTON, CAL.—Bids are asked until 10 a. m., May 14, by Eugene D. Graham, Clk. Bd. of County Supervs., for paving Cherokee Lane, Waterloo, Linden, Copperopolis, Farmington, Mariposa, French Camp and West Side roads, in the county of San Joaquin, under specifications No. 26, to include about 38 miles of roads, each of oil concrete pavement and macadam pavement.

LOS ANGELES, CAL.—The BARBER ASPHALT PAVING CO., Henne Bldg., Los Angeles, has secured the contract for improving Whittier Road, at $99,816.

Bids for improving the Los Angeles-Inglewood-Hermoso Beach road will be advertised for soon by the Board of County Supervisors.

LOS ANGELES, CAL.—The Board of Supervisors has awarded a contract to C. W. BRASHEAR, Pacific Electric Bldg., for the improvement of Washington St., by grading, culverts and asphalt paving. Cost, $70,000.

SAN DIEGO, CAL.—Bids are asked by the Board of Supervisors until May 6 for the construction of a public highway, twelve miles long, from Escondido to Poway. Thomas J. Fisher is Pres. of Bd.

Bids for the construction of a macadam roadway, three miles long, extending from the Government wireless station to Point Loma, were received by the U. S. Quartermaster at Fort Rosecrans as follows: Knight & Hyde, $48,775 for a 16-ft. macadam road, $68,300 for a 20-ft. road and $28,941 for 25-ft. granite road.

SANTA BARBARA, CAL.—The Lincoln Automobile Association, of Santa Barbara, has had estimates made for the cost of constructing a proposed macadam and asphalt road through Ventura and Santa Barbara Counties. The estimated cost is $300,000 for a 24-ft. road, including the cost of bridges, culverts, etc. Plans will be ready soon.

*BOISE, IDAHO.—Bids are asked until 8 p. m., May 28, by the Board of Public Works of Boise, for paving with either asphalt, bitulithic, vitrified brick, concrete or granitoid (with oil macadam along street car tracks) in the streets and parts of streets in Paving District No. 15 (approximating 160,000 sq. yds.) with necessary excavation and gutters. Karl Paine is Pres. Bd.

ST. BONIFACE, MAN.—The contract for pavement in St. Boniface has been awarded to the BITULITHIC & CONTRACTING CO. It is estimated that between 50,000 and 75,-000 sq. yds. of pavement will be laid.

MOOSE JAW, SASK.—The following are the bids received on April 11 for 33,000 sq. yds. of paving: (a) bitulithic, (b) creosoted wood block, (c) granitoid, (d) natural sheet asphalt, (e) asphalt block, (f) Westrumite pavement: Bitulithic & Contracting Co., Ltd., Winnipeg, Mann., $103,152, (b) $111,-477 and $116,472; Rudolph S. Blome Co., Chicago, Ill., (c) $105,184; National Paving & Contracting Co., Winnipeg, Man., (d) $94,931; Forest City Paving Co., Regina, Sask., (b) $103,230; Navin Bros., Moose Jaw, (e) $120,750 and $107,763; Fielding & Shipley, St. Paul, Minn., (b) $117,079; McKay Construction Co., Regina, (f) $89,244; Kettle River Co., Minneapolis, Minn., (b) (five bids), $103,400 to $124,379. W. F. Heal is City Clerk.

MANUFACTURING PLANTS.

(denotes that this work is advertised in Engineering News.)*

NEPONSET, MASS.—The Hallet & Davis Piano Co. has awarded contracts for an extensive plant to be constructed on the banks of the Neponset River at Neponset. The building will be on a branch of the New York, New Haven & Hartford R. R., and the Hallet & Davis Piano Co. has a spur track of more than 1,000 ft. in length on its own property there. It will have dock facilities, where coal and other supplies may be brought by vessel and unloaded upon its own land. The plans call for an expenditure of from $500,000 to $600,000. The buildings will be of reinforced concrete. Through its engineers, French & Hubbard, the company has let the contract to J. FRED LINES CO., of Meriden, Conn., and work is to begin at once. The first building will be about 300 ft. by about 80 ft., and five stories high. On this building there will be an expenditure of over $250,000. An underground passage will be made connecting with the engine and boiler house, which will be equipped with machinery necessary for manufacturing its own electricity for power, lighting and heating. In this factory all the machinery will be driven by individual motors, and every sort of known labor-saving device will be installed, so that the new

establishment in this respect will be one of the most modern in existence. The factory will give employment to more than 600 men.

SOUTH AUBURN (Province post-office), R. I.—The Maxwell-Briscoe Co. is preparing to erect a 3-story addition to its automobile plant at South Auburn.

BUFFALO, N. Y.—The John H. Kamman Co., 56 Washington Market, will erect a 3-story and basement refrigerating and meat distributing plant, 31 × 150 ft., at 179 Ellicott St. Details have not been completed nor architect selected.

Green & Wicks, Archs., 110 Franklin St., are preparing plans for a forge and foundry building and pattern shop, 180 × 225 ft., one and two stories, of brick and steel, to be erected at Northland Ave. and the New York Central R. R. Belt Line by the Niagara Machine & Tool Co. George A. Lautz, Pres., Superior and Randall Sts.

BUFFALO, N. Y.—Dodge & Day, 608 Chestnut St., Philadelphia, Pa., have been retained by the Niagara Machine & Tool Co., in connection with the layout of a plant which this company will built on a site recently acquired on the Belt Line R. R. The plant will include a machine and erecting shop and storebuilding and an office building.

LOCKPORT, N. Y.—The Simonds Mfg. Co., A. T. Simonds, Vice-Pres., Western Ave., 16th and 17th Sts., Chicago, has purchased a site of 66 acres and will erect a plant here for the manufacture of saws, machine knives and edge tools, in which the Chicago and Fitchburg, Mass., plants of the company will be merged.

NIAGARA FALLS, N. Y.—The National Carbon Co., of Cleveland, Ohio, has completed plans for building a plant here for the manufacture of carbon electrodes and other carbon commodities. The plant, consisting of several structures, will be built on a site of 13 acres. The main building will contain a furnace room about 300 ft. long.

The Hooker Electro-Chemical Co. is having plans prepared for an addition to its plant at Buffalo and Union Sts., to be built during the summer. A. H. Hooker is Mgr.

The Aluminum Co. of America has let a contract to the TURNER CONSTRUCTION CO., 312 Prudential Bldg., Buffalo, and 11 Broadway, New York, for erection of a 1 and 2-story rolling mill addition, 250 × 150 ft., to its plant on the Hydraulic Canal Basin. It will be of reinforced-concrete construction.

The United States Light & Heating Co., capitalized at $17,500,000, has let general contract to the SNYDER-GILLETTE CONTRACTING CO., Main St. Court., this city, for the construction of its manufacturing plant on Highland Ave. and the New York Central R. R. at a cost of about $300,000. The plant will comprise two main buildings, each 246 × 40 ft., two stories, of brick, mill construction, and twelve other buildings, some of them three stories in height. The company will manufacture storage batteries and appliances for lighting and heating railway cars. Electric power will be used in the plant, which will be furnished by the Niagara Falls Hydraulic Power & Mfg. Co. J. Allen Smith Vice-Pres. and Gen. Mgr., 30 Church St., New York City.

TONAWANDA, N. Y.—The Standard Stained Shingle Co., Harry E. Gosch, Pres., Oliver St., will build a plant at Fillmore St. and Ellicott Creek on the Erie R. R. Details have not been decided.

NEW YORK, N. Y.—We are officially advised that E. Greenfield's Son & Co., 107 Lorimer St., Brooklyn, N. Y., have awarded the TURNER CONSTRUCTION CO., 11 Broadway, New York, the general contract for the construction of a 6-story and basement reinforced-concrete factory building, 200 × 90 ft., with a 2-story garage, 20 × 90 ft. Henry Otis Chapman, 334 Fifth Ave., New York, is Arch. Work will be undertaken at once.

GARFIELD, N. J.—The erection of a factory is planned by the Passaic Knitting Works. The concern has purchased about 18,000 sq. ft. of land in Garfield, on which it will build a plant for the manufacture of bathing suits and sweater coats. The Passaic company was incorporated in 1909 with a capital of $25,000, its present plant being equipped with fifteen knitting and six sewing machines. Frank Bauer is Pres., buyer and Supt., and Ignatz Hambor, Secy.

PITTSBURG, PA.—The brick factory building of the Hardie Bros. Co., manufacturers of confectionery, at 16th St. and Liberty Ave., is to be enlarged by the addition of three stories. This will make the building double its present height.

A $20,000 addition is to be erected at the Haller Bread Co.'s bakery on Mahon St., plans for the enlargement having been drawn by Bartberger, Cooley & Bartberger, Westinghouse Bldg., Pittsburg.

TRAFFORD CITY, PA.—Plans are being prepared by the Westinghouse Electric & Mfg. Co., of Pittsburg, Pa., for the erection of a large steel foundry at Trafford City. Contracts for the work will be let soon, it is stated. The company has taken over the lease of the Interworks Railroad from the Westinghouse Machine Co., and will purchase from the same company some of the land which it owns at Trafford City on which to build the foundry.

CONNELLSVILLE, PA.—D. C. Ripley, of Pittsburg, Pa., has purchased the plant of the Baldwin Automobile Co., and will use the buildings for a glass plant. The Baldwin buildings are well located as to transportation facilities, and the main structure is 80 × 400 ft. It is of stone, brick and steel construction. To this Mr. Ripley will add a building, 80 × 130 ft., and will build a 15-pot furnace and erect a 10-ring tank. The work of construction will be completed so that the company may begin business operation Aug. 1. Plans for the enterprise allow for extension because of the large acreage connected with the property. Ripley & Co., Inc., will be the name of the firm, with offices in The House Bldg., Pittsburg.

SOUTH BETHLEHEM, PA.—The program outlined by Charles M. Schwab, Pres. of the Bethlehem Steel Co., for the expansion of the large plant here as announced by him, is as follows: A 6,000-HP. boiler, three gas engines for electric power, seven new locomotives and nine engines for blowing purposes at the blast furnaces, electrification of mill No. 1, new furnaces at press forge, addition to No. 1 tempering plant, additional tools for No. 6 shop and additional improvements to No. 2 shop. The total cost will amount to $2,795,000.

BALTIMORE, MD.—D. P. Hale has purchased a building on West 15th St., Baltimore, and will engage in the manufacture of buggies. He will erect two additional buildings.

MARSHVILLE, N. C.—Arrangements are being made at Marshville, N. C., for the organization of a company to build a hosiery knitting mill. The capital stock probably will be $50,000. Dr. M. P. Blair is promoting the proposition.

COOLEEMEE, N. C.—The North Cooleemee Hosiery Co., lately incorporated with a capital stock of $20,000, has determined details of its plans. It will erect a 40 × 100-ft. brick building, and install an equipment of modern machinery for knitting hosiery. Steam power will be used and from 50 to 60 operatives will be employed. C. P. Deadmon has been chosen Pres. and J. M. Granger Vice-Pres. They are both of Cooleemee, N. C., where the plant will be located. J. M. Greenfield, of Kernersville, N. C., is Secy.-Treas.

MAYSVILLE, KY.—The officers of the American Tobacco Co. have agreed upon Maysville as the place where they will erect a stemmerie, and it is stated that work would begin immediately.

FAIRPORT HARBOR, OHIO.—The first test well for the proposed $1,000,000 soda ash plant, to be built at Fairport, has been located on the Moodey farm, and will be drilled at once. The plant will cover over 400 acres just east of Fairport on the bank of Lake Erie.

MARTINS FERRY, OHIO.—The Whitaker-Glessner Co., of Martins Ferry, Ohio, has purchased a tract of 50 acres north of this city, upon which will be erected an iron and steel plant to cost approximately $2,000,000. The work of construction will be started in about a month.

MOUNT VERNON, OHIO.—The Mount Vernon Bridge Co., whose plant was destroyed recently by fire, will start the erection of a new plant soon. The capital stock of the corporation has been increased from $300,000 to $400,000 to provide additional capital for the construction. The plant will be of steel and concrete.

COLUMBUS, OHIO.—Frank A. Stallman, trunk manufacturer, of Columbus, will erect an addition to his plant on East Spring St. The addition will be 32 × 75 ft., four stories high and will be on Lafayette St., opposite the main building.

STOCKWELL, IND.—Morrison & Finch have let a contract for the erection of an elevator to the RELIANCE CONSTRUCTION CO., of Indianapolis, Ind.

INDIANAPOLIS, IND.—The Veneer Packing Co. has ordered plans for the erection of an addition to its plant on Kentucky Ave.

ELWOOD, IND.—Lewis Heffner has ordered plans for the construction of an elevator.

MUNCIE, IND.—The Hibbits Mill Co., recently incorporated, will build a flour mill and grain elevator. Wallace Hibbits is Pres.

MONTPELIER, IND.—The National Steel Casting Co. has decided to build an addition to its plant in this city. The building will be of brick and steel, 60 × 80 ft., and will join the present foundry building, 420 ft. long, which will extend the building to a total of 580 ft. long.

BATTLE CREEK, MICH.—The Union Steam Pump Co., of Battle Creek, Mich., contemplates building a 3-story and basement factory plant, 60 × 100 ft. Estimated cost, about $25,000.

JACKSON, MICH.—Clair Allen, Arch., Dwight Block, Jackson, Mich., has let the general contract for the Jackson Baking Co.'s 1 and 2-story bakery, 90 × 147 ft., to NORTH & BRADSHAW, Jackson, for $25,000.

The same architect has let the general contract for the proposed 3-story and basement plant, 46 × 104 ft., for the Jackson Corset Co. to NORTH & BRADSHAW, Jackson, Mich.

H. B. Clement, 501 Tolsma Bldg., Detroit, has let the general contract for the 1-story drop forge works, 170 × 60 ft. for the Baker Drop Forge Co., of Jackson, Mich., to DeVoe & McCormley, of Toledo, Ohio, at $15,000.

DETROIT, MICH.—Albert Kahn and E. Wilby, Archs., Trussed Concrete Bldg., Detroit, have let the following contracts for the 2-story Forge House No. 61, 140 × 80 ft., to cost about $15,000, for the Packard Motor Co., S. D. Waldon, Mgr., East Grand Boulevard and Belt Line: Masonry, to WILLIAM C. McEVOY, Chicago, Ill. The same architects have let the masonry contract for Forge House No. 62, 1-story, 380 × 70 ft., to cost $25,000, for the Packard Motor Co., to the A. J. SMITH CONSTRUCTION CO., 911 Hammond Bldg., Detroit.

G. A. Mueller, Arch., Ferguson Bldg., Detroit, has let the following contracts for the bottling works for the American Brewing Co., Edward Starge, Mgr., foot of Boyer Ave., Detroit: Masonry, to JOHN BOLLIN, 906 Bellevue Ave.; composition roofing, to DETROIT CORNICE & SLATE CO., 145 St. Antoin St.; plumbing, to JOHN IRVINE, 173 Elmwood Ave.; plastering, to H. SCHAEFER & SON, 113 Macomb St.; iron and steel work, to WHITEHEAD & KALES, Beecher St. and M. C. R. R.

L. Kamper, Arch., Fine Arts Bldg., Detroit, has prepared plans and specifications for a wagon factory for August Beer, 544 Baldwin Ave. Stock brick, concrete blocks, composition roof, galvanized iron skylight and cornice, structural iron, cement and maple floors, and electrical fixtures will be used in construction.

DETROIT, MICH.—J. Lawson Miller, Arch., 15 Goebel Building, Detroit, has prepared plans and specifications for a 2-story factory building for auto parts, 42 × 175 ft., of stock brick, Bedford cut stone construction, with cement and maple floors and electric fixtures will be used in construction.

Albert Kahn and E. Wilby, Archs., 800 Trussed Concrete Bldg., Detroit, are preparing plans and specifications for a 4-story and basement factory building, 240 × 65 ft., for the Burroughs Adding Machine Co., Alvan Macaully, Gen. Mgr., Second Ave. and Amsterdam St. The architects are ready for bids. Stock brick, Kahn's system of reinforced concrete, composition roof and electric fixtures will be used in construction.

Rogers & MacFarlane, Archs., 1310 Penobscot Bldg., Detroit, and W. H. Radford, Engr., 58 Tireman Ave., have prepared plans and specifications for a 4-sty automobile factory, 600 × 60 ft., for the Warren Motor Car Co., J. G. Bayerline, Gen. Mgr., 620 Field Ave. Construction will be of stock brick, Bedford cut stone, with composition roof, structural iron and electric fixtures will be used in construction.

GRAND RAPIDS, MICH.—The Grand Rapids, Grand Haven & Muskegon R. R. Co., W. K. Morley, Gen. Mgr., Oakes St. and Ellsworth Ave., Grand Rapids, Mich., have had plans prepared for a freight house, one story, 60 × 100 ft., of brick construction with concrete foundation.

The Macey Co., O. H. L. Wernecke, South Division St. and P. M. R. R., Grand Rapids, Mich., Mgr., is having plans prepared for a 4-story and basement addition, 96 × 124 ft., to the present factory, to cost $50,000. It is to be of brick and mill construction.

ALBION, MICH.—The Michigan United R. R. Co. has let the general contract for the proposed paint shop, 285 × 55 ft., to the ALBION LUMBER CO., of Albion, Mich., at $15,000.

The Union Steel Screen Co., of Albion, is taking figures on the proposed 2-story factory addition, 60 × 175 ft., to cost about $20,000. Brick and mill construction, composition roof and cement floors will be used in construction.

The Albion Malleable Iron Works, Albion, will take figures soon on the following buildings, estimated cost about $60,000; Annealing room, one story, 100 × 30 ft., of brick and mill construction, composition roof, metal skylight and concrete floors; core room, one story, 80 × 80 ft., of brick, composition roof, steel trussed roof, metal skylight and concrete floors; pattern vault, one story, 20 ft. high, 80 × 80 ft., of concrete, fireproof construction. The company will erect ten dwelling houses also.

KALAMAZOO, MICH.—The King Paper Co. is building a paper manufacturing establishment. The plant will have all the machinery driven by electric power and the energy for the motors will be generated in a power-house in connection with the plant. The electrical equipment will consist of one 1,000-KW. engine type generator, a 200-KW. direct-current generator and 95 direct-current motors ranging from 125 HP. down.

R. A. LeRey, Arch., Kalamazoo, Mich., is preparing plans and specifications for a 3-story factory building, 56 × 75 ft., for the Kalamazoo Playing Card Co. The structure will be of brick and mill construction with composition roof, concrete and wood floors and electric wiring. Cost, about $18,000.

PLAINWELL, MICH.—Dan J. Albertson, of Kalamazoo, Mich., is letting contracts for a paper mill, two and three stories high, for the Michigan Paper Co., Plainwell, Mich. Brick, concrete, composition roof, metal skylight, structural iron, concrete and wood floors and electric fixtures will be used in construction. The plant will cost, when complete, $300,000.

MANITOWOC, WIS.—To permit the William Rahr Sons Co. to go on with the enlargement of its plant here by the erection of a $500,000 addition, the City Council has voted to vacate portions of Sixth and Lake Sts.

MILWAUKEE, WIS.—H. J. Esser, Arch., 82 Wisconsin St., has awarded the following contracts on an $18,000 factory building, to be erected by the National Straw Works, on 18th Ave., near Scott St.: O. H. BOSSERT CO., 848 Jackson St., masonry; FRANK LUENZEMANN CO., 1912 Prairie St., carpentry.

The Charles H. Stehling Co. is taking bids on a 3-story reinforced-concrete and brick factory building, to be built at Fourth and Poplar Sts. It will be fireproof with new boilers and a large stack. Charles H. Stehling Co., Engrs.

WEST ALLIS, WIS.—The Wher Steel Co. has purchased a 3-acre factory site in this city and will erect a $50,000 factory building, 100 × 200 ft., with eight crude oil furnaces.

The Kempsmith Mfg. Co. has purchased a 10-acre factory site here and will erect a factory building with a floor space of 100,000 sq. ft., costing $150,000.

HORICON, WIS.—The Van Brunt Mfg. Co. has awarded the contract for building its factory to the J. P. CULLEN CO., of Janesville, Wis., at $31,000. The building will be three stories high, 100 × 200 ft., of reinforced-concrete.

DAVENPORT, IOWA.—French & Hecht have decided to expend about $125,000 on its foundry, to be of steel and concrete construction.

MINNEAPOLIS, MINN.—The Merchants' Elevator Co. will erect eight reinforced concrete grain tanks on Marshall St. and 23d Ave., N. E., to cost $25,000.

NORTH BRANCH, MINN.—The Northern Pacific Ry. Co., W. L. Darling, Ch. Engr., St. Paul, is receiving bids for the construction of a brick roundhouse, repair shop and equipment plant to be built at North Branch, Minn. The road will make a [illegible]ion point here and considerable other [illegible]ovements are involved. Cost, $100,000.

ST. PAUL, MINN.—Bids are [illegible]g asked by Griggs, Cooper & Co., w[illegible] grocers, for a cracker and a can[illegible]d syrup factory at Fairview and Uni[illegible]y Aves. Two buildings will be built o[illegible]nforced-concrete construction, each two [illegible]s high. Reed & Stem, Endicott Bldg., Archs. Cost, $500,000.

The West Publishing Co. has [illegible]led the contract for a 9-story pressed [illegible]k and cut stone, fireproof addition to [illegible]ant on West Third St., to GEORGE GRANT CONSTRUCTION CO., New York [illegible] Bldg. Cost, $90,000.

FORT WORTH, TEX.—The [illegible] Zandt-Moore Iron Works, Fort Worth [illegible]x., recently incorporated, will erect [illegible]achine shop, blacksmith shop, etc., for manufacture of cold-storage machinery and for general repair work. L. H. Van Zandt is Pres.

EL PASO, TEX.—The El Paso Electric Co. will erect a car house in El Paso. The structure is estimated to cost $11,[illegible] Stone & Webster, 147 Milk St., Boston, [illegible], are Gen. Mgrs.

FERRIS, TEX.—The plant of [illegible] Globe Pressed Brick Co. at Ferris, which [illegible]as recently destroyed by fire, at a loss about $40,000, will be rebuilt immediate[illegible].

WICHITA FALLS, TEX.—See it[illegible] under Buildings.

SEATTLE, WASH.—It is the int[illegible]on of the National Fiber Co. to establish [illegible] plant here for the manufacture of towelli[illegible] linen, crashes and twines. A mill for the [illegible]paration of raw material will be erect[illegible] during the summer, the company putting [illegible] a flax crop this spring of sufficient size to warrant the erection of such a mill. This will be preparatory to building a mill for the manufacture of the finished products.

SPOKANE, WASH.—Jay P. Grav[illegible] Pres. of the Spokane & Inland Empire Electric Ry. System, who will be head of the pulp paper mill to be erected near Spokane by a syndicate of capitalists, announces that the plant, to cost between $750,000 and $1,000,000, will be in operation within a year. Charles B. Pride, formerly of Appleton, Wis., will build the mill, which is to have a capacity for producing 40 tons of print paper daily.

PORTLAND, ORE.—The Royal Bakery Co. is preparing to enlarge its plant at Eleventh and Everett Sts., at an expenditure of between $80,000 and $100,000. The company will install over $20,000 worth of bakery machinery.

DOWNING, CAL.—J. V. Steven and associates will ereet a brick plant here for manufacturing vitrified brick, on the Salt Lake R. R. Cost, $20,000.

LOS ANGELES, CAL.—The Kline Invalid Bed Co., 808 Broadway Central Bldg., will erect a frame factory building at Wilmington, 130 × 30 ft., two stories and a 1-story wing, 120 ft. long. Charles F. Helmle is Arch., Linner Bldg., Los Angeles, Cal.

W. J. Saunders, Wright & Callender Bldg., has plans for a 3-story brick laundry building for the New Method Laundry Co., to be erected on San Julian St. The building will be 175 × 81 ft., with two wings, 54 × 21 ft. and 37 × 81 ft., three elevators. There is to be a 3-story stable.

*WHIPPLE BARRACKS (Prescott post-office), ARIZ.—Bids are asked by Lt. G. G. Bartlett, Constr. Q. M., Whipple Barracks, until 3 p. m., May 31, for constructing an ice plant at this post.

BOISE, IDAHO.—Bids are asked until 2.30 p. m., May 17, by the Constructing Q. M. for construction, plumbing, steam heating and electric wiring of a bakery, brick, with slate roof, at Boise Barracks.

PORT ARTHUR, ONT.—An agreement has been signed by the city officials with the Ironclad Mfg. Co. to establish a Canadian headquarters here. The company will employ 200 men in the manufacture of steel barrels and enamel ware.

CHIPPAWA, ONT.—The Lautz Co., 861 Main St., Buffalo, manufacturers of marble and onyx work, will build a branch plant at Chippawa, Ont., near Niagara Falls.

DUNNVILLE, ONT.—The International Tool Co. of Canada has completed plans for a plant which it will erect here.

BRANTFORD, ONT.—The Crown Electrical Co., of St. Charles, Ill., will establish a branch factory here for the Canadian trade. The factory will be erected at once and operation begun with 75 men.

ST. THOMAS, ONT.—By-laws were voted on and passed here on April 18 to loan the Norsworth Co., $10,000 in connection with its proposed factory for manufacturing furnaces, and to the Nursery Shoe Co., to aid them to the extent of $15,000 in establishing a shoe factory.

CALGARY, ALTA.—Officials of the Quaker Oats Co., 9 Jackson Boulevard, Chicago, Ill., have been looking over ground with a view to establishing a $500,000 plant here, to employ 300 hands the year round. It is expected that the local arrangements will be completed in a few days.

TAMPICO, MEXICO.—J. T. Willett and associates are erecting a cold storage and meat-packing plant at Tampico. They plan to furnish ice for the refrigerating departments of vessels carrying tropical fruits and vegetables and for icing cars that are employed in the transportation of these products.

CLARENCE LEE, of Monterey, Mexico, has the contract for the construction of a 350-bbl. flour mill at Tampico for Gustavo Madero, of Monterey, and associates. Material for the proposed mill is being assembled on the site where it is to be erected. In addition to the mill an elevator with 150,000-bbls. capacity will be erected.

MISCELLANEOUS CONTRACTS.

*(*denotes that this work is advertised in Engineering News.)*

U. S. RECLAMATION SERVICE.—All news relating to canal projects, etc., will be found under Water Supply—Irrigation.

DRAIN.—Yale, Mich.—Bids will be received until May 11 by the County Drain Commissioner at Yale for constructing the Jackson Drain.

CEMENT SACKS.—Los Angeles, Cal.—Bids will be received until May 6 by the Board of Public Works for furnishing 200,000 cement sacks.

DREDGING.—Ashland, Ohio.—Contract for the [illegible]rome Park dredge work (about 315,000 cu. yds.) has been awarded to J. A. ROB[illegible] of Ashland, at 9.7 cts. per cu. yd.

RETAINING WALL.—Dayton, Ohio.—Bids will be received until noon, May 11, by the Department of Public Service for building the Stewart St. retaining wall. J. C. Ely, Dir. Public Service.

DITCH.—Council Bluffs, Iowa.—Bids will be received until 9 a. m., June 9, by the Board of County Supervisors, for constructing the Pi[illegible] Creek ditch extension. J. H. Mayne is Engr.-in-Charge.

CONDUITS.—Duluth, Minn.—Bids will be received until May 5 by the Board of Public Works for construction of underground conduits for the wires of the fire alarm system. Estimated cost, $5,000.

ANCHORS.—Fort Totten, N. Y.—Bids will be received until noon, June 6, for furnishing and delivering 936 cast iron automatic torpedo anchors. Information furnished upon application to disbursing officer, torpedo depot.

DITCHES.—Watseka, Ill.—Bids will be received until 1 p. m., May 10, by the Commissioners of Union Drainage District No. 1, Martinton and Iroquois Townships, Iroquois County, for construction of various ditches in this district.

FIRE ENGINE.—Washington, D. C.—Bids will be received by the District Commissioners until 2 p. m., May 16, for furnishing one combination chemical engine and hose wagon for use in the Fire Department of the District of Columbia.

LEVEE, DITCHES.—Keithsburg, Ill.—Bids will be received until May 7 at the store of F. B. Wickett for constructing 182,000 cu. yds. of levee and 60,000 cu. yds. main ditches. The Harman Engineering Co., Engrs., 120 Fredonia Ave., Peoria, Ill.

STONE, ETC.—Memphis, Tenn.—Bids will be received until May 17 by the Mississippi River Commissioners, first and second Districts, Memphis, for furnishing 18,000 cu. yds. stone and spalls. Maj. M. L. Walker, Corps Engrs., U. S. A., Memphis.

CHANNEL.—Clarinda, Iowa.—Bids will be received until May 10 by the Board of Eupervisors, at Clarinda, for constructing a new channel for the Tarkio River in Drainage District No. 7, about 233,802 cu. yds. of excavation. C. W. Duke, County Audr.

REPAIRING SCOWS.—New York, N. Y.—Bids will be received by the Department of Street Cleaning until noon, May 16, for furnishing all the labor and materials required for repairs to scows of the Department of Street Cleaning, numbered 7, 13, 23, 27 and 36.

*SHEDS.—New Orleans, La.—Bids will be received until 1.30 p. m., May 20, by the Board of Commissioners of the Port of New Orleans, for the fabrication and erection of the structural steel and cast iron for any or all of several sheds. A. C. Bell, Engr., 606 Hibernia Bank & Trust Co. Bldg., New Orleans.

LEVEE.—Hamilton, Ohio.—The County Commissioners have adopted plans for the Stout levee improvement as prepared by L. A. Dillon, Engr., and have instructed the auditor to advertise for bids. The work is to be completed by Nov. 1, 1910, and will be about 1¼ miles in length. Estimated cost, $26,930.

SHELTER HOUSE.—New York, N. Y. — Bids will be received until 3 p. m., May 12, by the Department of Parks, for furnishing all the work and materials required for the completion of the abandoned contract of the William H. Luth Co., for the erection and completion of a shelter house in Fulton Park, Boro. of Brooklyn.

*DREDGING.—Chicago, Ill.—Bids were received by Maj. Thos. H. Rees, Corps Engrs., U. S. A., on April 25, for dredging in Calumet River, Ill. The lowest bid, at $161,385, submitted by the Great Lakes Dredge & Dock Co., of Chicago, was recommended for acceptance. Itemized bids are given in this issue under Contract Prices.

*COAL POCKET, WHARF EXTENSION.—Boston, Mass.—Bids were received on April 25, by Capt. A. M. Miller, Constr. Q. M., U. S. A., 263 Sumner St., Boston, for constructing a coal pocket, and extension to wharf at Ft. Strong, Boston Harbor, Mass. Lowest bidders were W. S. Rendle & Son, East Boston, Mass., at $8,303 for both pocket and wharf.

*REVETMENT.—Grand Haven, Mich.—Bids were received on April 29, by Maj. C. S. Riche, Corps Engrs., U. S. A., Grand Rapids, for repair of south revetment at Grand Haven. The bid of J. G. Hathaway & Co., Milwaukee, Wis., at $55,617, was the lowest and was recommended for acceptance. Itemized bids will be given under Contract Prices next week.

SEAWALL.—Boston, Mass.—Bids were received on April 20, by the Metropolitan Park Commission John R. Rablin, Engr., for building a seawall near Charles Eliot Circle, Revere Beach reservation. Contract has been awarded to W. H. ELLIS, 18 Tremont St., Boston, (for concrete construction) at $15,610. Itemized bids are given in this issue under Contract Prices.

JETTY.—Nehalem, Ore.—Bids will be received until 7 p. m., May 7, by the Commissioners of the Port of Nehalem for the construction of a south jetty at the mouth of the Nehalem River, in accordance with certain plans and specifications which may be found for inspection at 445 Sherlock Bldg., Portland, Ore., or at the office of the secretary of the Port, in Nehalem, Ore.

*DREDGING.—New York, N. Y.—Bids were received on April 1, by Col. Wm. T. Rossell, Corps Engrs., U. S. A., Army Bldg., for dredging in Passaic River and Shrewsbury River, N. J. Contract has been awarded to the NEWBURGH DREDGING CO., Newburgh, N. Y., for dredging in Shrewsbury River at 26 cts. per cu. yd ($4,000 is to be expended). The other bids were rejected.

COMPRESSOR EQUIPMENT. — Boston, Mass.—Bids were received as follows on April 30, by the Bureau of Yards and Docks, Navy Department, Washington, for condenser, piping, and pumps, for the central power plant at the Boston Navy Yard: Walworth Mfg. Co., Boston, $16,744 and $17,497; D'Olier Engineering Co., Philadelphia, $16,425; J. W. Danforth Co., Buffalo, $13,774.

REPAIRING FERRY STRUCTURES.—New York, N. Y.—Bids were received on April 26, by the Department of Docks and Ferries on Contract No. 1219: For furnishing all the labor and materials required for reconstructing and repairing the ferry structures at the foot of East 23d St., East River, Boro. Manhattan. The lowest bidder was E. De V. Tompkins, 81 East 125th St., New York, at $10,489.

*DREDGING.—Boston, Mass.—Bids were received on April 22, by the Board of Harbor and Land Commissioners, State House, for dredging in the upper portion of the channel of Weymouth Fore River. Estimated quantity, 27,000 cu. yds., scow measurement, as follows (per cu. yd.): J. P. O'Riorden, Charlestown, Mass., 29.75 cts.; Eastern Dredging Co., Boston, 33.7 cts.; Bay State Dredging Co., Boston, 34.5 cts.

*DREDGING.—Ashtabula, Ohio.—Bids were received by the Director of Public Service on April 27 for improving Ashtabula Creek at Ashtabula, Ohio. The work includes, approximately, 360,327 cu. yds. of earth excavation; 136,487 cu. yds. of rock excavation; 2,160 lin. ft. of "I" beam bulkhead. A. J. Richardson, Clerk. Contract was awarded to the INLAND WATERWAYS IMPROVEMENT CO., of Ashtabula, at $281,000.

STEEL TANKS.—Washington, D. C.—Bids will be received until 11 a. m., June 4, by the Bureau of Yards and Docks, Navy Dept., for steel fuel oil and gasoline storage tanks at naval stations on U. S. naval property at Bradford, R. I.; Norfolk, Va.; Charleston, S. C.; Key West, Fla.; Guantanamo, Cuba, and San Juan, P. R. Plans and specifications can be obtained on application to the Bureau. Specifications are on file at office of Engineering News, New York.

RAILROAD TRACK.—Charleston, S. C.—Bids were received as follows on April 30, by the Bureau of Yards and Docks, Navy Department, Washington, for the construction of a railroad track along the south side of dry dock No. 1 at the Charleston, S. C., Navy Yard: Simons-Myrant Co., Charleston, $2,860; R. E. & E. N. Beaty, Georgetown, S. C., $3,095; P. D. Hay, Charleston, $3,389; Charleston Engineering & Contracting Co., Charleston, S. C., $2,896.

*TIMBER.—Detroit, Mich.—Bids were received on April 14, by Col. C. McD. Townsend, Corps. Engrs., U. S. A., Jones Bldg., for furnishing and delivering at St. Marys Falls Canal, Michigan, about 2,630,000 ft. B. M. of timber. The following bids were recommended to Chief of Engineers, U. S. A., for acceptance: Lot 2 to White Star Lumber Co., Elma, Wash., $11.25 per M. ft. B. M., total cost, $11,089; lot 3 to Emery D. Weimer, Ludington, Mich., $18.94 per M. ft. B. M., total, $31,016.

CASTINGS, CEMENT, PIPE, ETC.—Washington, D. C.,—Bids will be received until 2 p. m., May 23, by the District Commissioners for furnishing the District government with the following materials during the fiscal year beginning July 1, 1910, and ending June 30, 1911: Granite curbing, asphalt paving blocks, repressed vitrified paving blocks, repressed vitrified invert sewer bricks, red sewer bricks, Portland cement, miscellaneous castings, sand and gravel, terra cotta sewer pipe and for hauling broken stone.

*DRAINAGE CANALS.—Tallahassee, Fla.—Bids will be received by the Board of Drainage Commissioners, Tallahassee, until 10 a. m., June 15, for excavating five drainage canals in the Everglades. The aggregate length of these canals is 235 miles and their construction requires the excavation of approximately 18,000,000 cu. yds. of earth and 6,000,000 cu. yds. of rock. J. O. Wright, is Ch. Drainage Engr. Maps, profiles and specifications may be seen at the office of Engineering News, New York.

RIVER IMPROVEMENTS. — Humboldt. Neb.—Bids were received on April 4 by Drainage District No. 2, Richardson County, C. M. Linn, Secy., for constructing about eleven miles of new channel for the Nemaha River, requiring the moving of about 810,000 cu. yds.; about 14,000 cu. yds. of Long Branch channel; about 6,320 cu. yds. Long Branch levee; about 2,640 squares of river cleaning, and the furnishing and constructing of three steel bridges across new channel of the Nemaha River. Contract has been awarded to CALLAHAN BROS., MUNN & REISE, Canon City, Colo., at $73,966.

*LEVEE.—Greenville, Miss.—Bids were received on April 27, by the Board of Mississippi Levee Commission at Greenville, Miss., for the construction of new levees at Riverton and at Shiloh, aggregating about 900,000 cu. yds. of embankment. W. J. Shackelford, Ch. Engr. Contract for 527,000 cu. yds. (Sections 1, 2 and 3) at Riverton, was let to ROACH, STANSELL & JENNINGS, Memphis Savings Bank Bldg., Memphis, Tenn., at 21¼ cts. per cu. yd. for the three sections (which was cheaper than their bids on the three separate sections). ROACH, STANSELL & JENNINGS were awarded contract for Section 1 of the levee at Shiloh (122,000 cu. yds.), at 16 cts., and Section 2 (130,000 cu. yds.), at Shiloh, at 16 cts. CLARK, GIBSON & CO., Natchez, Miss., were awarded contract for Sect. 3 (148,000 cu. yds.), at Shiloh, at 16.4 cts.

DITCHES.—Angleton, Tex.—Bids will be received by the Board of Commissioners, Brazoria County, Angleton, until noon, May 10, for performing the following work, of which the following is an approximate estimate of the work to be done: Ditch No. 1, 497,394 cu. yds.; ditch No. 2, 31,241 cu. yds.; ditch No. 3, 20,788 cu. yds.; ditch No. 4, 26,300 cu. yds.; ditch No. 5, 35,228 cu. yds.; ditch No. 6, 51,093 cu. yds.; ditch No. 7, 104,327 cu. yds.; ditch No. 8, 11,850 cu. yds.; ditch No. 9, 17,001 cu. yds.; ditch No. 10, 38,142 cu. yds.; cutoffs on slough, 26,660 cu. yds.; seven miles of slough to be cleared; wet excavation, 122,000 cu. yds. The above is the engineer's approximate estimate. Plans and specifications may be seen at the office of A. R. Leckie, Engr.-in. Charge, at Bay City, Tex.; also at the office of T. W. Carlton, at Alvin, Tex.; also at the office of the county judge of Brazoria County at Angleton, Tex. Bids will be received for the whole work.

U. S. POSSESSIONS.

(denotes that this work is advertised in Engineering News.)*

*LADDER DREDGE.—Panama.—Bids are asked by Capt. F. C. Boggs, Corps of Engrs., U. S. A., Gen. Purchasing Officer, Isthmian Canal Comn., until 10.30 p. m., June 27, for a twin-screw steel ladder dredge, having a hopper capacity of 1,200 tons of spoil.

LUMBER.—Panama.—Bids were received as follows on May 2, by the Isthmian Canal Commission, for furnishing about 1,511,000 ft. B. M., of rough long leaf yellow pine or Douglas fir lumber, for use on the Isthmus: A. S. Bacon & Sons, Savannah, Ga., $45,330; Bayshore Lumber Co., Mobile, Ala., $38,917; G. Elias & Bro., Buffalo, N. Y., $37,348; C. I. Millard, St. Louis, Mo., $38,799; Olympic Lumber Co., Washington, D. C., $39,678; W. R. Grace & Co., San Francisco, $33,770.

*TELEPHONE LINES.—Porto Rico.—Bids are asked until 2 p. m., May 18, by John A. Wilson, Comr. of the Interior for Porto Rico, San Juan, P. R., for furnishing all material and constructing three telephone lines complete; one from Guayama to the Patillas dam site, a distance of about nine miles; one from Juana Diaz, via Villalba, to Toro Negro Tunnel, about twelve miles; and one from Guayama to Carite Tunnel, about ten miles. The estimated cost is about $150 per mile. B. M. Hall is Ch. Engr., P. R., Irrigation Service.

LUMBER.—Panama.—Bids were received as follows on April 25, at the Isthmian Canal Commission, Washington, for furnishing about 2,000,000 ft. B.M. yellow pine or Douglas fir: G. Elias & Bro., Buffalo, N. Y., $59,730; William D. Gill & Son, Baltimore, Md., $61,465; C. I. Millard, St. Louis, $56,881; Olympic Lumber Co., Washington, D. C., $46,366; Robinson Lumber, Veneer & Box Co., New Orleans, for one-third each quantity, $22,024; Southern Saw Mill Co., New Orleans, $64,055; W. R. Grace & Co., San Francisco, Cal., $42,548.

STEEL CARS, ETC.—Panama.—Bids were received as follows on April 29, at the office of the Isthmian Canal Commission, Washington, for furnishing 12 all-steel flat cars, 3-foot gauge: Motley, Green & Co., New York (Ramapo Iron Works, makers), $7,800; William J. Oliver Mfg. Co., Knoxville, Tenn., $9,840; Arnstein, Arthur Koppel Co., New York, $7,296; Atlas Car & Mfg. Co., Cleveland, Ohio, $8,971. Bids were asked on April 28, for one track pile driver, but no bids were received at the time of opening.

PILING.—Panama.—Bids were received as follows on April 19, by the Isthmian Canal Commission, Washington, D. C., for furnishing a quantity of (a) treated piling and (b) untreated piling: American Creosote Works, New Orleans, (b) $153,213; Southern Creosoting Co., Gulfport, (b) $150,800; W. R. Grace & Co., San Francisco, (a) $60,320, for half the quantity called for; Gulfport Creosoting Co., Gulfport, Miss., (a) $147,181; American Tie & Timber Co., New York, (b) $53,581; G. Elias & Bro., Buffalo, N. Y., $60,130; S. E. Naylor & Co., Gulfport, Miss., $42,194; G. E. Rennolds & Bros., New York, $56,152.

SUPPLIES.—Panama.—Bids are asked until 10.30 a. m., May 11, by Capt. F. C. Boggs, Gen. Purchasing Officer, Isthmian Canal Comn., Washington, D. C., for locomotive cranes, inspection car, copper ladder rungs, wattmeters, chain blocks, lights, coal baskets, sprinkling cans, axes, adzes, machetes, scrubbing brushes, stable brooms, locks, hinges, gongs, vacuum gauges, foot valves, cocks, iron and vitrified pipe, fittings, brass chain, screws, rivets, nails, hasps and staples, copper gaskets, grommets, small shop tools, saws, twist drills, corundum wheels, manila rope, rubber belting, insulating paper, chalk line, lumber, etc.

CAR WHEELS.—Panama.—Bids were received as follows on May 3, at the office of the Isthmian Canal Commission, Washington, for furnishing during the period ending June 30, 1911, 6,500 standard M. C. B. 33-inch car-wheels, cast-iron, of various weights, and 50 24-inch wheels: Buffalo Car Wheel Foundry Co., Buffalo, N. Y., $58,225; Fox Bros. & Co., New York (representing Atlanta Car & Mfg. Co.), $63,997; Manning, Maxwell & Moore, Inc., New York (representing Decatur Car Wheel Co.), $63,144; Pierson & Co., 29 Broadway, New York (representing Ramapo Iron Works), $55,434; St. Louis Car Wheel Co., St. Louis, Mo., $57,783, (bid informal). George S. Fowler, Washington (representing the Maryland Car Wheel Works), will probably receive the award on his bid on $51,487, on the following unit prices: 4,000 car wheels, 33-in., 665 lbs.; and 500 of the same size and weight but different design, at $7.98 each; 1,200 33-in. wheels, 615 lbs., $7.45 each; 400 33-inch wheels, 580 lbs., at 57.10; 400 33-in., 715 lbs., $8.58; 50 24-in. 360 lbs., at $7.30.

CONTRACT PRICES.

(denotes that this work is advertised in Engineering News.)*

SEA WALL.—Revere Beach Reservation.—Revere, Mass.—Bids were received by John R. Rablin, Engr. Metropolitan Park Commission, for building 780 lin. ft. of sea wall. Bids were received for both stone and concrete work, the bidders being: (A) D. F. O'Connell & Co., Boston; (B) John J. Falvey, Somerville, Mass.; (C) Bruno & Petitti, Boston; (D) Devincenzi & Baruggoldi, Boston; (E) Belvilacqua Construction Co., Boston; (F) Lawler Bros., Charlestown, Mass.; (G) Luke D. Mullen, Boston; (H) Coleman Bros., Boston; (I) John E. Palmer, Boston; (J) James H. Fannon, Somerville, Mass.; (K) John Cashman & Sons Co., West Quincy, Mass.; (L) W. H. ELLIS, Boston, (awarded contract) for concrete construction. The itemized bids were as follows:

	A	B	C	D	E	F	G	H	I	J	K	L
CONCRETE:												
6,000 cu. yds. earth grading	$0.98	$1.00	$1.00	$0.94	$1.00	$0.80	$0.50	$0.80	$0.80	$0.50	$0.70	$0.50
1,700 cu. yds. concrete masonry	11.50	11.00	11.00	7.09	6.95	8.00	8.00	7.00	6.90	7.50	7.00	6.50
780 lin. ft. concrete coping	3.00	3.00	2.00	5.10	4.86	2.00	2.75	2.30	2.10	2.75	2.25	2.00
STONE:												
6,000 cu. yds. earth grading	.98	...	1.00	.90	1.00	.80	.50	.80	.80	.50	.70	.50
7,700 cu. yds. stone masonry	12.25	...	17.00	9.00	8.78	13.00	8.25	6.50	7.80	10.00	6.50	7.50
780 lin. ft. concrete coping	4.00	...	4.00	4.00	4.25	4.75	4.10	4.00	3.50	3.50	3.75	4.40
Totals, concrete	$27,700	$27,040	$26,260	$21,671	$21,605	$19,960	$18,745	$18,494	$18,168	$17,895	$17,855	$15,610
Totals, stone	$30,605	......	$38,020	$24,060	$24,241	$30,605	$20,223	$18,970	$20,790	$22,730	$18,175	$18,970

*TUNNEL.—Newton, Mass.—Bids were received by the Metropolitan Water and Sewer Board, Boston, Henry H. Sprague, Chn., April 15, for constructing a pressure tunnel and laying water mains, etc., for the western acqueduct supply main in Newton. The bidders were: (A) Joseph Hanreddy, Chicago, Ill.; (B) Coleman Bros., Chelsea, Mass.; (C) Bruno & Petitti, Boston, Mass.; (D) Patrick McGovern, Boston, Mass.; (E) D. F. O'Connell, Boston, Mass.; (F) Luke D. Mullen, Boston, Mass.; (G) Peter F. Connolly Co., Jamaica Plain, Mass.; (H) Jones & Meehan, Boston, Mass.; (I) John J. Falvey, Somerville, Mass. The itemized bids were as follows:

	A	B	C	D	E	F	G	H	I
950 cu. yds. top soil excavation	$0.60	$0.40	$0.60	$0.75	$1.00	$0.40	$0.40	$1.00	$0.50
910 cu. yds. top soil surfacing	.50	.30	.50	.75	.60	.40	.40	1.00	.40
5,530 cu. yds. earth excavation in open trenches	.50	.60	1.25	.75	1.50	.50	1.50	1.30	1.00
1,700 cu. yds. rock excavation in open trenches	3.25	4.00	3.50	3.50	4.00	4.00	3.00	4.00	4.00
8,900 cu. yds. refilling trenches and building embankments	.50	.30	.50	.25	1.00	.30	.50	1.00	.50
1,900 lin. ft. excavating tunnel	25.00	26.00	20.00	26.50	22.00	29.00	27.40	30.00	37.00
7,500 cu. yds. crushing stone	.75	.70	.80	.55	.80	.60	.70	1.00	1.00
2,300 cu. yds. concrete masonry in tunnel	10.00	11.00	12.00	10.50	11.00	12.00	11.00	11.00	10.00
500 cu. yds. concrete masonry in open trench	6.00	5.50	7.50	10.50	8.00	9.00	8.00	8.00	7.00
50 cu. yds. brick masonry	15.00	16.00	16.00	20.00	16.00	16.00	14.00	22.00	15.00
200 cu. yds. cement grout in tunnel	12.00	12.00	20.00	25.00	20.00	18.00	30.00	15.00	18.00
500 lin. ft. cement mortar lining for steel pipe	5.50	5.50	4.00	3.00	5.00	4.00	5.00	4.00	2.00
930 lin. ft. laying 60-in. c.-i. pipe	2.00	2.00	3.00	5.50	3.00	3.50	3.00	2.00	2.00
530 lin. ft. laying 80-in. steel pipe	3.00	2.50	4.00	5.50	6.00	3.00	7.45	2.00	3.00
Total	$102,150	$105,201	$105,278	$113,848	$114.681	$115,839	$120,914	$127,509	$130,628

Readers' Wants

If you are in the market for material, equipment or supplies, and fail to find it in our advertising pages, send us full particulars, and we will gladly put you in touch with the right parties.

CATALOGS.—Presque Isle, Me.—We are requested by W. W. Achenbach, Civil Engr., to advise our readers that he desires catalogs of general construction materials.

CATALOGS.—Orilla, Ont.—W. K. Greenwood writes us that he has been appointed Town Engineer and desires catalogs on municipal engineering equipment.

CONSTRUCTION EQUIPMENT CATALOGS.—Bayonne, N. J.—Bedell & Coleman, Engrs., 237 Prospect Ave., write us that they desire catalogs on the following materials at once: Bridge and trestle work supplies, cranes, cables, hoisting machinery, transmission and power machinery, conveyors, elevators and ore handling machinery, pumps and pumping engines, pipe, pipe fittings and pipe tools, concrete mixers, reinforcing and structural steel.

EXAMINATIONS.

WIRELESS TELEGRAPH OPERATOR. — Philippines.—The U. S. Civil Service Commission announces an examination on June 1 to secure eligibles from which to make certification to fill three vacancies in the position of Wireless Telegraph Operator at $1,200 a year each, in the Philippine Bureau of Posts, and vacancies requiring similar qualifications as they may occur in the Philippine Service. Age limit, 21 to 40 years. Application form 2 and 1800.

BACTERIOLOGICAL CHEMIST.—Philadelphia, Pa.—The U. S. Civil Service Commission announces an examination on June 1 to secure eligibles from which to make certification to fill a vacancy in the position of Bacteriological Chemist (female), $1,200 a year, in the Bnreau of Chemistry of the Department of Agriculture, at Philadelphia, Pa., and vacancies requiring similar qualifications as they may occur in that Department, unless it shall be decided in the interests of the service to fill the vacancy by reinstatement, transfer, or promotion. Age limit, 20 to 45 years. Application form 1312.

WIRELESS ENGINEER.—Philippines.—The U. S. Civil Service Commission announces an examination on June 1 to secure eligibles from which to make certification to fill two vacancies in the position of Wireless Engineer at $2,000 a year each, in the Philippine Bureau of Posts, and vacancies requiring similar qualifications as they may occur in the Philippine Service. Competitors will not assemble for any of the tests. The duties of the appointees will be as follows: To have charge of the laboratory tests of all instruments and apparatus pertaining to wireless telegraphy; the standardization of circuits and instruments used in wireless; the development of special apparatus and methods of wireless signalling suited to special conditions, and of new forms of sending and receiving circuits; to inspect the various wireless stations, and to make the necessary measurements of their electrical constants; to carry on quantitative experimentation and original investigation in wireless telegraphy, and, in general, to carry out such work as may be necessary for the development of the science. Age limit, 21 to 40 years. Application form 2 and special form. Application must be filed prior to closing hour on June 1.

INDUSTRIAL NOTES.

THE WHITE FIREPROOF CONSTRUCTION CO. has removed its New York office from 1 Madison Ave. to larger quarters at 286 Fifth Ave.

MR. F. A. MOLITOR, M. Am. Soc. C. E., has removed his consulting engineering offices from 79 Wall St., to 2 Rector St., New York City.

MR. ONWARD BATES, M. Am. Soc. C. E., Consulting Engineer, Chicago, announces the removal of his office from 355 Dearborn St. to 193 Michigan Boulevard, Chicago, Ill.

THE HARRIMAN LINES placed an order with the Pullman Co. for 424 all steel passenger cars. This is the largest single order for steel passenger equipment ever given, except those made by the Pennsylvania Railroad.

THE AETNA ENGINEERING & CONTRACTING CO., Herkimer, N. Y., has recently been incorporated. Henry A. Van Alstine, Assoc. M. Am. Soc. C. E., is one of the incorporators. With him are associated Charles T. Ford, E. Brown Baker and C. A. Tegethoff.

THE T. L. SMITH CO., makers of the Smith concrete mixer, announce the removal of their general sales office to the Majestic Bldg., Milwaukee. A branch office will, however, be retained at 305 Old Colony Bldg., Chicago, in charge of Mr. A. L. Tucker, district manager.

AT MISSOURI VALLEY, IOWA, the Missouri Valley Electric Light Co. has just installed a 500-KW. Westinghouse turbine generator set for furnishing local light and power. The turbine is of the complete expansion type, utilizing steam at 125 lbs. and exhausting into a vacuum of 28 ins.

THE NEW ERA of the Gas Engine Co., Dayton, Ohio, has recently sold its autocycle business, except such tools and appliances applicable to the gas engine business. The space formerly occupied by cycle manufacturing will be devoted to extending the gas engine business.

BARGE CANAL contractors in New York State recently held a meeting at Utica, N. Y., and formed an association. The stated objects of this association are said to be for protection against legislation affecting barge canal construction, as well as mutual information among members of the association regarding methods of work and management.

IDLE CARS, reported by the American Railway Association, in the United States and Canada numbered 77,357 April 13, an increase of 51,471 cars in the fortnight. The gain in coal cars alone was 40,858, due to the strike of the miners. This is the largest increase in more than a year, but a year ago there were 282,382 idle cars.

COAL OPERATORS AND MINERS in the Central Pennsylvania bituminous district have signed a wage scale agreement, to run for two years from April 1, 1910. The scale signed is as follows: Pick mining, per gross ton, 69 cents; pick mining, per net ton, 61.6 cents; machine mining, gross ton, 40 cents; net ton, 35.46 cents. All other wages for labor, dead work and yardage, to be advanced 5.55 per cent. over the previous scale.

THE SULLIVAN MACHINERY CO. will remove its general offices May 1 from the Railway Exchange Bldg. to the People's Gas Light & Coke Bldg., 150 Michigan Ave., Chicago. The company also announces the appointment of Mr. Myron C. Doll, Manager of the Salt Lake City branch. He has been connected with the Denver branch for several years. Mr. M. Brodie, the former manager, has been assigned to the department of foreign sales.

MASON & HANGER, contractors for one of the siphon tunnels on the New York water supply extension, are installing in their plant at Cornwall, N. Y., two large Ingersoll-Rand Corliss duplex air compressors, with a capacity of 5,200 cu. ft. per minute. These compressors have cross-compound Corliss steam cylinders and cross-compound two stage air cylinders. They are of the enclosed, dust-proof, flood-lubrication type designed for high-speed operation at an air pressure of 80 to 100 lbs. These contractors have also placed an or... for a full equipment, including twelve I... Ingersoll-Rand rock drills, mountings, etc., for carrying on their work.

A CONSOLIDATION of the lea... independent radiator manufacturers ... effected May 1st. The companies inclu... in the merger are United States Radiator ... Boiler Co., Pittsburg; United States Ra... Co., Dunkirk, N. Y.; United States H... Co., Detroit, Mich.; the Herrenden M... ing Co., Geneva, N. Y., and the r... department of the J. L. Mott Iron W... New York City. These independent ... nies have for years proved very active ... peti-tors of the leading interest, the ... rican Radiator Co. The President of ... new corporation will be Chas. E. Patter... Dunkirk, N. Y., with R. J. Gross, of ... City, Vice-President, and G. C. Black... as Secretary.

(Continued on page 191.)

LIST OF CONTRACTS PENDING.

Light, Heat and Power Plants.

		Noted in issue of
5- 7	Condensers, etc., Philadelphia, Pa.	4-14
5- 6	Light system, Wetumka, Okla.	5- 5
5- 7	Electric material, Saint Bernard, Ohio	5- 5
5-10	Engines, etc., Washington, D. C.	5- 5
5-10	Elec. light plant, Fargo, N. Dak.	5- 5
5-10	Elec. light system, Fort Logan, H. Roots, Ark.	4-28
5-11*	Equipment, Baltimore, Md.	4-21
5-11	Distributing system, Ft. Greble, R. I.	4-21
5-12	Steam piping, etc., Cincinnati, Ohio	4-28
5-13	Elec. wiring, Ft. Terry, N. Y.	4-21
5-14	Switchboard, etc., Columbus, Ohio	4-28
5-16	Conduit, etc., Winnipeg, Man.	4-28
5-20	Elec. light system, Fort Missoula, Mont.	5- 5
5-20	Lighting system, Ft. Dade, Fla.	5- 5
5-21	Power plant, Washington, D. C.	4-21
5-23*	Elec. light system, Fort Morgan, Ala.	4-28
5-25	Power plant, Fort Caswell, N. C.	5- 5
5-26	Boilers, etc., Medford, Okla.	5- 5
6-11	Piping, etc., Charleston, S. C.	5- 5

Bridges.

5- 6	Substructure, etc., Steubenville, O.	4-21
5- 6	Bridge, Elkins, W. Va.	4-14
5- 6	Bridges, etc., Savannah, Mo.	5- 5
5- 6	Bridge, Lancaster, Pa.	5- 5
5- 7	Bridge, Cedar Rapids, Iowa	4-28
5- 7	Bridge, Ellice, Man.	4-28
5- 9	Bridge, Eugene, Ore.	5- 5
5- 9	Culvert, Albion, N. J.	5- 5
5-10	Bridge, Kokomo, Ind.	5- 5
5-10*	Bridge, Shreveport, La.	5- 5
5-11*	Bridge work, Chicago, Ill.	5- 5
5-11	Bridges, Wilkes-Barre, Pa.	5- 5
5-11	Bridge work, Cleveland, Ohio	4-21
5-12	Bridges, Rockport, Ind.	4-28
5-12	Bridges, New Castle, Pa.	5- 5
5-14*	Bridges, Jamestown, N. Y.	5- 5
5-14	Bridge work, Cleveland, Ohio	4-28
5-14	Bridge, North Chicago, Ill.	4- 7
5-16*	Bridge, Ypsilanti, Mich.	4-14
5-17	Culverts, Indianapolis, Ind.	5- 5
5-17*	Bridge, Philadelphia, Pa.	5- 5
5-17	Bridges, Nevada, Mo.	5- 5
5-17	Bridges, Danville, Ind.	5- 5
5-17	Repairing bridges, Hollidaysburg, Pa.	5- 5
5-18	Bridge, Cameron, Tex.	4-28
5-21	Bridge work, Cleveland, Ohio	5- 5
5-23	Superstructure, Niles, Ohio	5- 5
5-23	Bridge, Hubbard, Ohio	5- 5
5-24	Bridge, Oil City, Pa.	5- 5
5-25	Bridge, Van Wert, Ohio	5- 5
5-25	Bridge work, Cleveland, Ohio	4-28
6- 1	Bridge, Gretna, La.	3-24
6- 1	Substructure, Whiterocks, Utah	3-10
6- 6	Bridges, Crown Point, Ind.	5- 5
6-28*	Bridge, Winnipeg, Man.	5- 5

Buildings.

5- 6	Post-office, Cleveland, Tenn.	4- 7
5- 6*	Quarters, etc., Ft. H. G. Wright, New York	4- 7
5- 6	Quarters, Ft. Caswell, N. C.	4-14
5- 7	Post-office, Newark, Ohio	4- 7
5- 7	Storehouse, Bremerton, Wash.	3-24
5- 7	Quarters, Bremerton, Wash.	3-24
5- 9*	Post-office, Austin, Minn.	3-31
5- 9	Cells, Carson City, Nev.	4-21
5- 9	Schools, Columbus, Ohio	4-21
5- 9	Hospital, Ft. McKinley, Me.	4-28
5- 9	Schools, New York	4-28
5- 9	Jail, Genoa, Nev.	5- 5
5- 9	School, Altoona, Pa.	5- 5
5- 9	School, Monessen, Pa.	5- 5
5-10	Post-office, Great Falls, Mont.	4- 7
5-11*	Vault, etc., Tacoma, Wash.	3-31
5-11	Barracks, Ft. Monroe, Va.	4-21
5-11	Laundry machinery, North Chicago, Ill	4-28
5-11	Building, Ft. Myer, Va.	5- 5
5-11	Fire stations, Winnipeg, Man.	5- 5
5-12	Roofing, etc., New York	5- 5
5-12	Heating, etc., Springfield, Mass.	5- 5
5-12*	Quarters, Ft. Douglas, Utah	4-28
5-12*	Post-office, Appleton, Wis.	4- 7
5-13*	Post-office, Ottumwa, Ia.	4- 7
5-13*	Quarters, Ft. Terry, N. Y.	4-14
5-13	School, Massillon, Ohio	5- 5
5-14	Post-office, Sewickley, Pa.	4-14
5-14	Storehouse, Vallejo, Cal.	4- 7
5-14	Sheds, etc., New York	4-28
5-15	Storehouse, etc., Ft. Terry, N. Y.	4-21
5-16	School, New Castle, Pa.	4-28
5-16*	Post-office, Shreveport, La.	4- 7
5-16	Plumbing, Belleville, Ill.	4-14
5-16	School, Waterbury, Conn	4-28
5-16	Church, Port Arthur, Tex.	5- 5
5-16*	Window screens, Ft. Du Pont, Del.	5- 5
5-16	Schools, New York	5- 5
5-17	Court-house, Forman, N. Dak.	5- 5
5-17	Bakery, Boise, Idaho. (Mfg. Pl.)	5- 5
5-18*	Post-office, Centralia, Ill.	4-21
5-19*	Post-office, Catlettsburg, Ky.	4-14
5-20*	Sheds, New Orleans, La.	4-28
5-20	Quarters, Galveston, Tex.	4-28
5-20*	Screens, etc., New London, Conn.	5- 5
5-21	Rebuilding, Portsmouth, N. H.	4-14
5-21	Building, Portsmouth, N. H.	4-21
5-23	Post-office, Delaware, Ohio	4-28
5-24	Quarters, Ft. Leaenworth, Kan.	5- 5
5-25*	School, Long Branch, N. J.	5- 5
5-25	Post-office, Griffin, Ga.	4-28
5-26	Post-office, North Yakima, Wash.	4-21
5-27	Barracks, Ft. Winfield Scott, Cal.	5- 5
5-27*	Quarters, Ft. Monroe, Va.	5- 5
5-31*	Ice plant, Whipple Barracks, Ariz. (Mfg. Pl.)	5- 5
5-31*	Post-office, Keene, N. H.	4-28
6- 2	Post-office, Carrollton, Mo.	5- 5
6- 6*	Elevators, New York	5- 5
6- 7	Post-office, Fremont, Neb.	4-28
6- 9*	Post-office, Middletown, N. Y.	5- 5
6-13	Boiler plant, Pittsburg, Pa.	5- 5
6-15	Schools, Magnolia, Ark.	5- 5
7- 1	Plans, New Orleans, La.	3-17

Water-Works.

5- 6	Well, Aurora, Ill.	5- 5
5- 7	Pump-head, Caledonia, Minn.	5- 5
5- 9	Water main trench, Laporte, Ind.	5- 5
5- 9	Water distributing system, Fort Ogelthorpe, Ga.	5- 5
5-10	Water-works, Bloomington, Ind.	5- 5
5-10	Water distrib. system, Fort Sill, Okla	4-28
5-11	Mains, New York	4-28
5-13*	Waterproofing, Asheville, N. C.	5- 5
5-14	Well, Glen Gardner, N. J.	5- 5
5-16*	Water mains, Steger, Ill.	5- 5
5-17*	Piping, New Britain, Conn.	5- 5
5-17*	W.-wks. bonds, Stigler, Okla.	4-28
5-18	W.-wks. extension, Gadson, Ala.	4-28
5-18	Water pipe line, Fort Riley, Kan.	4-28
5-18*	Boilers, Perth Amboy, N. J.	4-28
5-18	Pipe system, Oakland, Cal.	5- 5
5-18	Water-mains, New York	5- 5
5-20	Filtration plant, Niagara Falls, N. Y.	5- 5
5-23*	Boilers, Fort DuPont, Del.	4-28
5-25*	Dam, etc., Creede, Colo.	4-21
5-26	W.-wks. impvts., Lorain, Ohio	5- 5
5-26	Reservoir, etc., Riverside, Ala.	5- 5
6- 1*	Dam, Fort Meade, S. Dak.	5- 5
6- 1	Reservoir, North East, Md.	4-14
6- 6	Reservoir, Jacksonville, Fla.	5- 5
6-14*	Pump station, Detroit, Mich.	4-21

Sewers.

5- 5	Sewer system, St. Petersburg, Fla.	5- 5
5- 5	Sewer, Newark, N. J.	5- 5
5- 6	Sewer, Cincinnati, Ohio	5- 5
5- 6	Sewer, Youngstown, Ohio	4-28
5- 9	Sewer system, Mandon, N. Dak.	4-28
5- 9	Sewers, Oklahoma City, Okla.	5- 5
5- 9	Sewer system, Madill, Okla.	5- 5
5- 9	Sewers, Menominee, Mich.	5- 5
5- 9	Sewer, Cincinanti, Ohio	5- 5
5-11	Grading at sewage works, North Chicago, Ill.	4-28
5-16	Sewer, Brainerd, Minn.	4-21
5-16*	Sewers, Westfield, N. J.	4-21
5-16	Sewers, Bridgeburg, Ont.	5- 5
5-16	Sewers, etc. Morrillton, Ark.	5- 5
5-17	Sewers, Dorranceton, Pa.	5- 5
5-17*	Sewers, Bridgeton, N. J.	5- 5
5-17	Sewerage, Sanford, N. C.	5- 5
5-17	Sewer, Paterson, N. J.	5- 5
5-17	Sewers, Belzoni, Miss.	4-14
5-17*	Sewer, St. Louis, Mo.	4-28
5-20*	Sewers, Hackensack, N. J.	5- 5
5-21*	Sewer, St. Louis, Mo.	4-28
5-23	Sewers, Aberdeen, S. Dak.	5- 5
5-24	Sewer, Cleveland Heights, Ohio.	4-28
5-31*	Sewer, St. Louis, Mo.	4-28
6- 8	Sewers, Princeton, W. Va.	5- 5

Streets and Roads.

5- 6	Road, Albany, N. Y.	4-28
5- 6	Road, Indiana	4-21
5- 6	Road work, Concord, N. H.	4-21
5- 6	Road, San Diego, Cal.	5- 5
5- 6	Paving, Bridgeport, Conn.	5- 5
5- 6	Paving, Troy, N. Y.	5- 5
5- 6	Paving, etc., Dormont, Pa.	5- 5
5- 6	Grading, Youngstown, Ohio	5- 5
5- 6	Paving, Iowa City, Iowa	5- 5
5- 7	Road, Palatka, Fla.	5- 5
5- 9	Paving materials, Detroit, Mich.	5- 5
5- 9	Paving, Elgin, Ill.	5- 5
5- 9	Macadam, Steubenville, Ohio	4-14
5-10	Stone, New York	4-28
5-10	Road, Columbus, Ohio	4-28
5-10	Paving, Janesville, Wis.	4-28
5-10	Grading, etc., Olympia, Wash.	4-28
5-10	Road impvt., Columbus, Ohio	4-21
5-10	Paving, New York	5- 5
5-10	Macadam, Denton, Md.	5- 5
5-10	Paving, Arlington, Va.	5- 5
5-10	Paving, Shreveport, La.	5- 5
5-11	Paving, Port Jervis, N. Y.	5- 5
5-11	Paving, Fond du Lac, Wis.	5- 5
5-11	Paving, New York	4-28
5-11	Road, Columbus, Ohio	4-28
5-12	Macadam, Newton, N. J.	4-28
5-12	Paving, New York	4-28
5-12*	Paving, Washington, D. C.	4-28
5-12	Roads, Indiana	4-21
5-12	Road gravel, New York	4-28
5-12	Screenings, New York	5- 5
5-13	Street impvt., St. Louis, Mo.	4-28
5-14	Paving, Cleveland, Ohio	5- 5
5-14	Paving, Stockton, Cal.	5- 5
5-15	Roads, Plymouth, Ind.	4-28
5-16	Paving, Blaine, Wash.	4-28
5-16*	Street impvt., Westfield, N. J.	4-21
5-17	Paving, Paterson, N. J.	4-28
5-17	Paving, Olean, N. Y.	5- 5
5-17	Macadam, etc., Spokane, Wash.	5- 5
5-18*	Stone road, Elizabeth, N. J.	5- 5
5-18	Paving, New York	5- 5
5-20	Road, Cincinnati, Ohio	5- 5
5-20	Roads, Concord, N. H.	5- 5
5-23	Paving, Wash., D. C.	5- 5
5-23	Roads, Indiana	4-21
5-23	Stone road, Jeffersonville, Ind.	4-14
5-24*	Road, Rockport, Me.	5- 5
5-25	Paving, Bethany, Mo.	4-28
5-25	Roads, etc., Columbus, Ohio	5- 5
5-27	Gravel road, Wabash, Ind.	5- 5
5-27	Sidewalks, Grand Rapids, Mich.	4-28
5-28*	Paving, Boise, Idaho	5- 5

Miscellaneous.

5- 5	Conduits, Duluth, Minn.	5- 5
5- 6	Cement sacks, Los Angeles, Cal.	5- 5
5- 6	Ditch, Armour, S. Dak.	4-28
5- 6	Fire alarm telegraph system, New York, N. Y.	4-28
5- 6*	Gymnastic apparatus, West Point, N. Y.	4-21
5- 7	Ditch, Marion, Ind	4-28
5- 7	Jetty, Nehalem, Ore.	5- 5
5- 7	Levee, ditches, Keithsburg, Ill.	5- 5
5- 9	Steel culverts, Lisbon, N. Dak.	4-28
5-10	Ditches, Angleton, Tex.	4-28
5-10	Sale of island, Ottawa, Ont.	4-28
5-10	Ditches, Watseka, Ill.	5- 5
5-10	Channel, Clarinda, Iowa	5- 5
5-11*	Power boat, Wilmington, Del.	4-14
5-11	Supplies, Panama	5- 5
5-11	Retaining wall, Dayton, Ohio	5- 5
5-11	Drain, Yale, Mich.	5- 5
5-12	Shelter-house, New York	5- 5
5-15	Watering carts, etc. (Garbage), Boston, Mass.	3-24
5-16*	Diversion channel, East St. Louis, Ill.	4-14
5-16	Supplies, Dover, N. J.	4-21
5-16*	Drainage, Colville, Wash.	4-28
5-16	Repairing scows, New York	5- 5
5-16	Fire engines, Wash., D. C.	5- 5
5-17	Stone, etc., Memphis, Tenn.	5- 5
5-18*	Ditches, St. Paul, Minn.	4-28
5-18*	Maneuver boat, Cincinnati, Ohio	4-28
5-18*	Incinerator (Garbage), Aberdeen, Wash.	4-28
5-18*	Telephone lines, Porto Rico	4-28
5-20	Culverts, Cincinnati, Ohio	4-28
5-20*	Sheds, New Orleans, La.	5- 5
5-21	Wreck removal, Plymouth, Mass.	4-28
5-23	Castings, cement, pipe, etc., Wash., D. C.	5- 5
5-24	Dredging, Wilmington, Del.	4-28
5-24	Barge canal, Albany, N. Y.	4-28
5-25	Crematory (garbage), Columbus Barracks, Ohio	5- 5
5-31*	Garbage plant (Garbage), Vancouver, B. C.	4-21
5-31	Destructor plant (garbage), Vancouver, B. C.	4-28
6- 4	Steel tanks, Wash., D. C.	5- 5
6- 6	Anchors, Fort Totten, N. Y.	5- 5
6- 9	Ditch, Council Bluffs, Iowa	5- 5
6-15*	Drainage canals, Tallahassee, Fla.	5- 5
6-15*	Lock gates, Panama	4-21
6-17*	Dredging equipment, Philadelphia, Pa	4-28
6-27*	Ladder dredge, Panama	5- 5

Examinations.

5-18	Library Asst., Wash., D. C.	3-24
6- 1	Bacteriological Chemist, Philadelphia, Pa.	5- 5
6- 1	Wireless Engr., Philippines	5- 5
6- 1	Wireless Telegraph Operator, Philippines	5- 5

Plans and Specifications on File.

The following plans (P.) and Specifications (S.) are on file (for reference only unless otherwise noted) at the office of The Engineering News Publishing Co., 220 Broadway, New York.

5- 7	Condensers, etc., Philadelphia, Pa. (S.)	4-14
5- 7	Storehouse, Bremerton, Wash. (S.)	3-24
5- 7	Quarters, Bremerton, Wash. (S.)	3-24
5-14	Storehouse, Vallejo, Cal. (S.)	4- 7
5-14	Bridge, North Chicago, Ill. (S.)	4- 7
5-16*	Diversion channel, East St. Louis, Ill. (S.)	4-28
5-21	Rebuilding, Portsmouth, N. H. (S.)	4-14
5-21	Power plant, Washington, D. C. (S.)	4-21
6- 4	Steel tanks, Washington, D. C. (S)	5- 5
6-15*	Drainage canals, Tallahassee, Fla. (P. & S.)	5- 5

CURRENT PRICES OF ENGINEERING MATERIALS

Supplement to ENGINEERING NEWS, appearing in the First Issue of Each Month. New York, May 5, 1910.

PRICE CHANGES AND THE BUSINESS OUTLOOK.

Construction work is more active, although not all of this season's contracts are yet in full swing. There is special activity in municipal work, particularly in the line of street paving and sewerage. New waterworks and additions to existing ones are numerous, but the individual contracts are small.

In other lines of trade a curious feeling of pessimism is prevalent. Machinery dealers complain that the outlook is not what they would like; hardware manufacturers report few orders for future delivery, and the pig iron trade is in the doldrums. Those directing large business enterprises express themselves as fairly well satisfied with the present volume of business, but couple with this an expression of fear that it will not last. The dullest trades and the smallest volume of business booked are those where prices advanced rapidly last year. In these, notable recessions are being made, and prices must come down to a normal basis before any large volume of business will be taken. In the cement trade, where prices are at the old low level, business is exceedingly active with the outlook promising.

Labor conditions have gradually improved. Generous wage increases have been granted by the railways and the larger industrial corporations have likewise increased the compensation of employees. The labor outlook is much more satisfactory and it is significant to note that there has been an appreciable decline in the prices of staple foods.

Unusually large inquiries have been made for rolling stock, but only a few of these have as yet turned into orders. Motive power, however, has been purchased more freely by the railroads than at any time in three years. Freight rates are being raised. A marked increase in the number of idle cars was reported by the American Railway Association, but this was largely due to a surplus of coal cars.

The announcement of large issues of new securities by railways has been followed by a sharp decline in the price of stocks. Bond prices are steady but with no improvement in the demand. The iron and steel situation is less satisfactory than it has been for a year. Prices of pig iron have declined to a point where manufacturers are blowing out their furnaces and several thousand coke ovens are now cold. Finished products are easier, there being particularly sharp competition for fabricated material. In the metal trades, business is good, but production continues to increase. In copper particularly there has been a sharp decline without attracting buyers in large volume. Cement prices in the middle West are firmer, and business is in a relatively better demand at practically unchanged quotations. Paving material is in excellent requisition.

Important pending work includes the double-tracking of 380 miles of line for the Missouri, Kansas and Texas. Contracts have been let for about 200 miles of construction by the Canadian Pacific. The Oregon Trunk Railway will build about 130 miles of expensive line in Central and Southern Oregon. The Grand Trunk is planning to build important lines in New England. The Boston & Maine will expend $2,000,000 for yard extensions and shops at Somerville, Mass. The Lehigh Valley will make important improvements in Buffalo and construct new low grade lines. A hydro-electric development of 50,000 HP. is contemplated on the Sultan River, Wash.

LABOR.

Increases in wages of practically all classes of labor have been frequent. Common laborers on construction work are receiving 16½ cts. an hour when sent out by employment agencies, and the larger railways in the East are paying for steady work 15 cts. an hour. For wet work common laborers receive 22½ cts. an hour. Foreman are scarce, especially those competent to handle Italian labor. The large construction jobs in this vicinity are not yet working full time, notably the Ashokan Reservoir and the Barge Canal. On the Brooklyn subway the number of men employed daily is only 1,395.

Among the railways wage increases have been made by many lines. A general increase is noted on the Lackawanna and the New York Central. Readjustments likewise have been made in the electric railway field and city lines in St. Louis, Mo., and Montreal, Canada, granted increased compensation. These increases apply to all classes of laborers employed.

The wage scale on the railways is now, for the first time in several years, higher than that of industrial organizations. This has caused some readjustment among the large employers in other lines, notably increased pay of rolling mill hands by the United States Steel Corporation and a general increase by the International Harvester Co. Bituminous coal miners in the Illinois and Clearfield fields have been granted increases amounting to 3 to 5%. Strike talk is much less frequent; the long-drawn-out Philadelphia strike being a thing of the past. The pilots of the tug boats in the New York Harbor did not tie up traffic.

Steerage passengers arriving at the port of New York up to and including April 23d, numbered 301,667. This is a slight gain compared with the corresponding time last year, when the inbound third-class passengers numbered 239,089.

CEMENT, LIME AND BRICK.

PORTLAND CEMENT.—Trade continues to improve, particularly in the Middle West. Some of the mills in that territory are sold up well into the Summer. Others are only taking new contracts when they can obtain marked advances over prices ruling last year.

Many of the mills there have made contracts which will net them $1 per bbl., in bulk, at the mill. Formerly sales were made netting 80 cts. and less. The Eastern demand is good, but there is plenty of cement stored and from the present outlook there appears to be no danger of a shortage. It must be remembered that the cement capacity of the country has increased greatly since the last shortage, and prices of $1.50 a bbl., in bulk, at the mills, are probably gone forever.

A slight change has been made in the charge for bags, the difference between paper and cloth bags now being 20 cts. instead of 25 cts.

Prices are without change and for delivery within lighterage limits New York City, $1.43 per bbl. is quoted. In Philadelphia, $1.42, in Boston, $1.32, in Buffalo, $1.50.

Imported cement continues without change, Alsen's being quoted at $2.42, and Dyckerhoff's $2.43.

NATURAL CEMENT.—While a slight improvement is noted in the demand for natural cement, there has not been the proportionate volume of business booked in this line as there has in Portland. Prices are unchanged at 80 cts. per bbl. delivered along side of dock New York City.

LIME.—Trade has improved and the demand is considerably larger. Prices are unchanged from last month, as follows: For large lots delivered New York City quotations are as follows: State common, per bbl., 75 cts.; Rockland-Rockport common, 92 cts.; Rockland-Rockport special, 320 lbs., $1.37; select finish, 350 lbs., net, $1.60; New Milford, $1.30. Hydrated lime for brick work is $6.50 per ton; for finishing, $9 per ton. These prices are for carload lots.

Adamant wall plaster is $6 per net ton delivered at the work.

PLASTER BLOCKS.—For large lots prices are as follows:

	Weight lbs. per sq. ft.	Price cts. per sq. ft.
2-in.	7	6
3-in.	8½	6¼
4-in.	11	7¼

These blocks are made 32-in. long by 13½-in. wide containing 3 sq. ft. of surface. The 2-in. blocks are solid, but the others are hollow.

Plaster boards ⅝-in. thick are 16 cts. per sq. yd.

BRICK.—The demand continues to improve and building is going forward rapidly. It is evident, however, that there is plenty of brick to supply the requirements, and unless building should increase more than is anticipated from the present returns there will be enough in New York City to complete the contemplated work. Prices of Hudson River common are nominally without change at $5.75 to $6.25. Raritan River brick are higher, due to an increased demand in New Jersey, being quoted at $5.75 to $6.

In Boston brick are $7 delivered on the work, and in Chicago $7 is likewise quoted, delivered on the job.

White enameled brick are in excellent demand. the unchanged price is $60 per M. for the American size (8⅜ × 2¼-in. enameled surface by 4⅛-in. bed), and $70 to $75 for the English size (9 × 3-in. enameled surface by 4½-in. bed). Prices are f. o. b. Perth Amboy.

STONE.

BLUESTONE.—Business has been better than usual. Contracts have been placed freely and at comparatively low figures. Some of the larger sellers in bluestone are only bidding on attractive work where they can obtain an advantage in the way of transportation charges.

While there does not seem to be much selling at less than 18 cts. New York, still an advance of only one cent a foot would bring into the market a large quantity of stone. Thin stone is especially in over supply.

Prices continue without change from last month and for delivery either along side of dock or f. o. b cars, New York City, are as follows: Flagging, 6 cts. per sq. ft. per in. of thickness; flagging, 2½ to 3-in. thick that will pass New York City specifications, 18 to 19 cts. per sq. ft. Some concessions, however, have been made and stone of this character has sold at 17 cts.

Sewer bottoms 5 ft. sq. and 3-in. thick are sold at 25 cts. per sq. ft. Curbing, 5 × 16-in., is 35 cts., and 5 × 20-in., is 47 cts. per lin. ft. Belgian bridge, 6 × 24-in. by 5-in. thick is 60 cts., and 6-in. thick is 72 cts. per lin. ft.

Promiscuous shapes of building and foundation stone sell at 70 to 74 cts. per cu. ft.

GRANITE.—The demand for granite is good. Some attractive orders have recently been taken, especially for building work. Prices continue without change at 40 to 45 cts. per cu. ft. for promiscuous shapes or run of quarry. Rockport granite is 45 cts. The simple forms of dressed granite range from 90 cts. to $1.25 per cu. ft. Large bridge piers and abutments will be taken at $1.35 to $2 per cu. ft. Building granite is difficult to quote, but in general ranges from $2.50 to $3.50 per cu. ft. delivered on the work New York City.

Pink Milford granite is $1 per cu. ft. for promiscuous shapes.

LIMESTONE.—The base price of limestone delivered along side of dock, New York City, is 85 cts. per cu. ft. Dressed stone varies largely, but the cost of dressing is small compared with granite.

Sandstone in rough shape is selling at 80 cts. to $1 per cu. ft.

INTERIOR STONE.—Dressed stone for interior work, ready to be placed in building, varies largely according to the size of the job and character of the work. In general slate flooring 1-in. thick can be had at 20 cts. per sq. ft. for the common or ribbon variety. Clear black sells at 35 to 40 cts., and the same price is asked for Vermont. Combination of slate and marble flooring is 30 cts. per sq. ft.

Marble flooring finished ready to lay of Vermont marble is 50 to 70 cts. per sq. ft.; Italian marble, 70 to 90 cts. Tennessee marble can be had at 65 cts. Ordinary stair work, such as slate steps, are quoted at 24 cts. per sq. ft.

CRUSHED STONE, SAND AND GRAVEL.

CRUSHED STONE.—Business continues active. Numerous contracts have been placed for large quantities of stone, and there is much work in sight calling for stone to be delivered later in the year. The contract for furnishing the Department of Docks, City of New York, with 15,000 cu. yds. of stone was awarded recently at $1.04 to $1.06 per cu. yd. This, however, includes the services of men to load the buckets and empty them on the dock, the city furnishing the power. Otherwise prices are unchanged at 90 cts. to $1 for 1½-in. stone, $1 to $1.10 for ¾-in. stone, and 90 to 95 cts. for screenings. Concessions would be made on large contracts, especially for screenings. In Buffalo crushed stone at the crusher is 65 cts. per ton.

SAND.—Business is excellent. One of the leading sellers of sand in the local market affirms that it has never been better. This company alone sold twice as much sand during March than ever before in the corresponding month.

Prices continue without change. Standard grades of Long Island washed sand being quoted at 35 cts. per cu. yd. delivered along side of dock. Sand delivered in Buffalo is selling at 70 cts. per cu. yd.

White quartz sand is 58 to 62 cts. per cu. yd. White quartz grit 75 cts. per cu. yd.

These quotations are for full cargo lots of 500 cu. yds.

GRAVEL.—Business continues active and the outlook is excellent. Washed gravel is selling at 70 to 80 cts., delivered along side of dock, in cargo lots of 500 cu. yds. White quartz roofing gravel is $1.25 to $1.35 per net ton.

IRON AND STEEL.

PIG IRON.—Continued declines were made in all markets during the month. Some of the important consumers after announcing their intention to purchase large quantities at marked concessions from the then ruling prices, withdrew their offers as the market continued to weaken. Buying has been limited, and several furnaces have gone out of blast.

The most comprehensive statement regarding the conditions in the pig iron trade is taken from "The Iron Age," as follows:

"Interest naturally centers in the movement to reduce the pig iron output and surplus stocks. In the East one New Jersey and four Pennsylvania furnaces are preparing to blow out. Being of less than modern caliber, they represent about 1,000 tons a day. One Buffalo furnace blew out to-day (April 28). In Ohio three furnaces have gone out, one at Columbus, one in the Hanging Rock district, and one at Toledo, and two in the Mahoning Valley will follow next week. At a meeting of Mahoning and Shenango Valley furnace companies last week it was agreed that the large accumulations in those districts call for sharp restriction. It is proposed that the merchant furnaces there bank for 30 days between now and July 1. The pig iron output of some of the steel companies has also been reduced."

How sharp the curtailment has been is found in to-day's issue, which figures the April production of coke and anthracite pig iron as 2,483,763 tons. The daily rate was 78,693 tons, compared with 84,610 tons in March, and 85,616 tons in February. The active capacity the furnaces blast on May 1st was 5,917 tons less per day than on April 1.

As stated, prices are lower in all the markets, the following quotations being for lots of 100 gross tons and over f. o. b. cars at the points named: Cincinnati, Southern foundry No. 1, $15.75 to $16.25; Southern foundry No. 2, $15.25 to $15.75; Southern foundry No. 4, $14.25 to $14.75. In Philadelphia Eastern Pennsylvania No. 2 X is $17.75; Eastern Pennsylvania plain, $17.25 to $17.75; in Chicago Northern foundry No. 2 is $17.25 to $17.75; Southern foundry No. 2 is $16.35 to $16.85. In Pittsburg, Bessemer is $18, including the 90-ct. freight rate from the valley.

STRUCTURAL SHAPES.—Business is not as active as a month ago, and a number of bridge orders are held up pending an expected readjustment in price. While fabricating work is being done cheaper, the base price of structural shapes is unchanged. Frequent reports are heard regarding concessions of $1 to $2 per ton. Inquiries in the market include the following bridge orders: 5,000 tons for the Chicago Great Western, 3,000 tons for the N. Y., N. H. & H., 6,500 tons from the Great Northern and 6,000 tons from the Oregon Short Line. The American Bridge Co. has taken the contract for 7,000 tons for the Pittsburg, Shawmut & Northern. In all, between 30,000 and 50,000 tons of bridge work is pending and has been for some time.

Fabricating shops in the Chicago district were greatly disappointed last week when bids for approximately 20,000 tons were refused by the railways.

Building work is fair, 6,000 tons being recently placed for the Merchants' & Manufacturers' Exchange; a part of the Grand Central Terminal, and the steel work for the Bankers' Trust Co. will shortly be let. This will involve between 6,000 and 8,000 tons. Much work was expected from the car builders, and although there are plenty of inquiries in the market for cars, these have not been turned into orders.

Prices continue without change and are quoted as follows in cts., per lb. f. o. b. Pittsburg: I-beams and channels, 3 to 15-in., 1.50 to 1.55; over 15-in., 1.65; H-beams over 8-in., 1.75; angles, 3 to 6-in., 1.60; over 6-in., 1.65; zees over 3-in., 1.60; deck beams and bulb angles, 1.80; hand rail tees, 2.80.

Chicago store prices in cts. per lbs., are as follows: Angles, 3 to 6-in., 2 to 2.10; over 6-in., 2.10 to 2.20; the beams and channels base, 2.

STEEL RAILS.—Business has been extremely quiet, and although the mills are actively engaged on old contracts, there has been little new business worthy of note. The Lake Shore has purchased 12,000 tons, the Nickle Plate 5,000 tons, the Boston & Maine has given orders for 11,000 tons of open-hearth rails, and is expected to buy at least as much more.

Export business has again appeared, and the leading interest has booked 18,000 tons for New South Wales, while an Eastern mill took 10,000 tons for the National Railways of Mexico. Some business is pending for Southwestern lines.

Quotations are without change, the following prices being named for lots of 500 tons and over, carload lots being held at 50 cts. a ton additional; these quotations are f. o. b. mill: Standard sections, 50 to 100-lb., $28; 40 to 45-lb., $27; 30 to 35-lb., $27.50 to $28.50; 20 to 25-lb., $27.25 to $28.25; 12 to 14-lb., $29; 8 to 10-lb., $32. Relaying rails are slightly easier and can be had at $21 to $22 in New York, but in Chicago are $24 to $25.

TRACK SUPPLIES.—Business is limited, the railways buying only in small quantities for immediate needs. One reason for this has been the difficulty in securing trackmen.

Prices continue without change. Standard railway spikes, 4½ × 9/16-in. and larger, are quoted at 1.80 to 1.85 cts. per lb. Boat spikes are 1.80 cts. base. These prices are for carload lots and larger f. o. b. mill, 10 cts. per 100 lbs., advance being charged for small lots. Track bolts with square nuts are held at 2.30 to 2.50 cts. per lb., and angle bars 1.50 to 1.55 cts. per lb. in Chicago and Pittsburg.

PLATES.—The plate trade is in the most peculiar condition. It is known that the largest railroads have inquiries out for an exceedingly large number of cars. These contracts have not been closed as yet, and it is feared that some of them will be indefinitely postponed. The trade, however, is expecting a large tonnage from the car manufacturers. Much the same condition of affairs prevails among the mills on the coast, there being a large amount of shipbuilding work in sight. This, however, has a very fair chance of being placed later in the year. It is known that some water-pipe work will come out this year, but there is an apparent feeling that somewhat lower prices will be named. Rumors of shading amounting to $1 to $2 a ton are reported, but unconfirmed. The market is weaker, but we quote prices unchanged for mill shipments. Quotations

are as follows: ⅜-in. thick up to 100 ins. wide, 1.55 to 1.60 cts.; ¼ to 3/16-in. thick, 1.65 to 1.70 cts. Under 3/16-in. and heavier than No. 8 gage, 1.70 to 1.75 cts. No. 8 and No. 9 gage, 1.80 to 1.85 cts. Store prices in Chicago are 2 cts., base.

OLD MATERIAL.—Business is less active than last month, and prices continue to recede slowly. The rolling mills are practically out of the market, and they are only buying an occasional carload. The foundries, too, are only purchasing scrap in small quantities.

In New York City and vicinity, prices are as follows per gross ton: Re-rolling rails, $13.50 to $14; heavy melting steel scrap, $13 to $13.50; No. 1 yard wrought, $13.50 to $14; No. 1 railroad wrought, $15 to $15.50; pipe and flues, $13 to $13.50; No. 1 heavy cast broken up, $13.50 to $14; stove plate, $10.50 to $11.

In Chicago the supply is in excess of the demand, and prices are likewise lower. Delivered in Chicago the following prices rule per gross ton: Re-rolling steel rails, $17.50 to $18; Short lengths, $16.25 to $16.75; heavy melting steel scrap, $14.25 to $14.75. For materials sold by the net ton, prices are as follows: Miscellaneous railroad wrought, $14.75 to $14.25; machine shop turnings, $9 to $9.50; cast and mixed borings, $5.50 to $6; No. 1 cast scrap, $13.50 to $14; stove plate and light cast scrap $11.50 to $12; pipes and flues, $10.50 to $11.

Pittsburg prices continue to decline in sympathy with lower quotations for materials in other parts of the country, as well as concessions ruling in pig iron. Quotations per gross ton are as follows: Re-rolling rails, $16.75 to $17; No. 1 foundry cast, $15.25 to $15.50; No. 2 foundry cast, $14 to $14.25; old grate bars, $10.75 to $11; bushelling scrap, common, $10.50 to $10.75; old car wheels, $15 to $15.25; cast-iron bearings, $9 to $9.25; machine shop turnings, $11 to $11.25.

CAST-IRON PIPE.—Business in this line is probably more active than in any other branch of the iron and steel trade. The price of pig ore has declined from $2 to $3, but cast-iron pipe is selling at the same price as last Fall, except in Birmingham, where prices have declined $1 per ton. The foundries are fairly well supplied with orders, and while there is keen competition for business, there is also a disposition to let it alone when offered at low figures. Numerous inquiries are on the market and the leading interest is preparing to buy approximately 50,000 tons of pig iron. Quite a little pipe will be required for the Pacific Coast. Chicago is also in the market for moderate tonnage. No bidders were willing to assume the risk for supplying 3,800 tons of flexible pipe for New York City.

In Birmingham quotations are $1 a ton lower, and we quote 4 to 6-in. f. o. b. cars at foundry, $24; 8 to 12-in., $23; over 12-in., $22. In Chicago, 4-in. is $28.50; 6 to 12-in., $27.50; 16-in. and larger, $26.50. For New York City delivery, 6-in. is quoted at $25.50 to $26. Gas pipe is sold $1 a ton higher in all markets. Specials are from $50 to $60 per net ton.

STEEL CASTINGS.—Business is only fair, but makers are running full time on old contracts. Prices continue without change. Open hearth castings weighing from 100 to 500 lbs. are 3½ to 5 cts. per lb. Crucible castings of approximately the same weight are 7¾ to 9 cts. per lb.

CASTINGS, GREY IRON.—In the building line there is a better demand for material than in practically any other field, and consequently building castings are in active demand. Columns, column-caps, plates and treads are 1.75 to 2 cts. Where there is considerable column work for a large loft building, business would be taken at 1.65 cts. and even lower. Stair work is 2 to 2.25 cts. per lb. Manhole covers and general sewer castings are 1.5 to 1.75.

PILING SHEET STEEL.—Business is quiet and prices are unchanged at 1.60 to 1.70 cts. per lb. f. o. b. Pittsburg. For desirable orders makers would probably shade this to the extent at least of 5 points.

RIVETS.—Business has eased slightly, due to a decreased demand from car builders. Prices continue without change, as follows: Structural rivets, ¾-in. and larger, 2.15 cts., base; cone head boiler rivets, ¾-in. and larger, 2.25 cts., base; ⅝-in. and 11/16-in. take an advance of 15 cts., and ½-in. and 9/16-in. take an advance of 50 cts.; in lengths shorter than 1 in., also take an advance of 50 cts. The above prices are absolutely minimum on contracts for large lots, makers charging the usual advance of $2 to $3 a ton to the small trade.

FREIGHT RATES.—The freight rates, on finished steel products, from the Pittsburg district, including plates, structural shapes, merchant steel and iron bars, pipe, fittings, plain and galvanized wire, nails, rivets, spikes and bolts (in kegs), black sheets (except planished), chain, etc., are as follows, in cts. per 100 lbs.: Albany, 16; Buffalo, 11; Boston, 18; Baltimore, 14½; Canadaigua, 13½; Cleveland, 10; Columbus, 12; Cincinnati, 15; Chicago, 18; Harrisburg, 14½; Louisville, 18; New York, 16; Norfolk, 20; Philadelphia, 15; Rochester, 11½; Richmond, 20; Scranton, 15; St. Louis, 23; Washington, 14½.

WIRE ROPE.—Prices are without change. The discounts to the larger consumers are 42½% and 2½% discount from list for galvanized and 50% and 2½% for plain. The net prices of galvanized are as follows:

Diameter in ins.	Cts., per ft. 7 Wires to strand	Cts., per ft. 12 Wires to strand.
½	3.4	4.
⅝	4.5	5.1
¾	5.1	5.5
⅞	6.75	7.3
1	7.75	8.8
1¼	13.5	10.2
1⅜	15.2	14.
1½	20.	21.
1⅝	21.5	22.5
1¾	25.	26.

ROOFING, CORRUGATED.—The local demand shows a decided improvement compared with a month ago. This is traceable to an improvement in the building trades. At the mills conditions are not as satisfactory and there is keen competition for orders.

Quotations are unchanged from last month and for 100 sq. ft. of roof surface are as follows: Carloads, Pittsburg, No. 28 painted, $1.70; No. 28 galvanized, $3. From store, New York, No. 24 painted, $3.85; galvanized, $4.80; No. 26 painted, $2.95; galvanized, $4; No. 28 painted, $2.60; galvanized, $3.75.

ROOFING, TIN PLATE.—While the bright tin plate trade is more active than a month ago, due to prospects for a good canning season, there has been little or no change in the terne plate situation. The terne plates used for roofing are sold by the box of 112 sheets. Store prices in New York City are $8.50 per box of IC, 20 × 28-in. plates, with an 8-lb. coating. Plates of the same size with a 15-lb. coating, are $10.40; 20-lb. coating, $13, and 40-lb. coating, $16.50.

SHEETS.—Some of the larger mills have enough business on their books to keep them busy for several months, but others have practically no orders. These are shading the market to the extent of $1 a ton on black sheets and $2 to $3 on galvanized. The local demand is fair.

Prices, for mill shipments of carload lots, are as follows:

	Cts. per lb. Black.	Cts. per lb. Galvanized.
Nos. 3 to 8	1.70	...
Nos. 9 and 10	1.75	...
Nos. 11 and 12	1.80	...
Nos. 13 and 14	1.85	2.50
Nos. 15 and 16	1.95	2.60
Nos. 17 to 21	2.20	2.75
Nos. 22 and 24	2.25	2.90
Nos. 25 and 26	2.30	3.10
No. 27	2.35	3.30
No. 28	2.40	3.50

Store prices Chicago are as follows:

	Cts. per lb. Black.	Cts. per lb. Galvanized.
No. 10	2.30	3.25 (Nos. 10 to 14)
No. 12	2.35	
No. 14	2.40	
No. 16	2.50	3.35
Nos. 18 and 20	2.85	3.40
Nos. 22 and 24	2.90	3.55
No. 26	2.95	3.70
No. 27	3.00	3.95
No. 28	3.10	4.15
No. 30	3.30	4.55

COKE.—Prices of coke have declined. The Frick Coke Co. has put out 1,200 ovens and there are 3,000 ovens cold in the upper and lower Connellsville regions where the work of blowing out others goes rapidly forward. Furnace coke containing less than 1% sulphur is $1.75 per ton, at oven, for prompt shipments; for second half $2 is quoted. Foundry coke has not declined in proportion and for 72-hr. foundry $2.50 to $3 is quoted.

NAILS.—The demand for nails is fair, but it is particularly good in the West. Prices per 100 lbs. are without change, as follows: In carload lots to jobber, $1.80; to retailers, $1.90; less than carloads to jobbers, $1.90; to retailers, $2. In New York small lots are sold at $2.10. Cut nails are quoted $1.85 base Pittsburg and $2.10 base New York store.

WIRE.—There is a very fair business which has developed in the West, and the wire mills are likewise working on merchant orders. Stocks are comparatively low, especially at the mills.

The base prices, to retailers f. o. b. Pittsburg, are as follows: Carloads, annealed, $1.70; galvanized, $2. Less than carloads, annealed, $1.80; galvanized, $2.10.

Barb wire painted is $1.95 for carloads, and $2 for smaller quantities; galvanized is $2.20 for carloads and $2.30 for small lots.

Staples are $2.43, Chicago, to retailers in less than carload lots. All of these prices are per 100 lbs.

MERCHANT PIPE.—The pipe trade is not what many expected it would be, more or less weakness was evident in the middle of the month, but since then several inquiries have come into the market, which have strengthened prices considerably. The Philadelphia Co. last week bought 15 miles of 10-in. pipe, and is negotiating for 15 miles of 16-in. Another user is inquiring for 10 to 20 miles of 10 and 12-in. pipe. One of the most ambitious schemes as far as pipe line construction is concerned comes from California. It is proposed to build an 8-in. pipe line from Cananea, Mexico, to the San Joquin Valley, California. This will be used for fuel oil and will be 1,800 to 2,000 miles in length, and will call for 150,000 tons of pipe. This, however, is still in the embryo state. The regular discounts are unchanged at 78% for ¾ to 6-in. black, 72% for 7 to 12-in. black, and 68% for ¾ to 6-in. galvanized, 57% for 7 to 12-in. galvanized. The net prices in the following table have been computed at these discounts:

	Steel Pipe in Cts., per ft., f. o. b. Mill. Black.	Galvanized.
¾-inch	2.53	3.68
1 -inch	3.63	5.28
1¼-inch	4.95	7.20
1½-inch	5.94	8.64
2 -inch	7.92	11.52
2½-inch	12.67	18.30
3 -inch	16.61	24.16
4 -inch	23.76	34.56
5 -inch	32.90	46.30
6 -inch	41.36	60.16
7 -inch	65.80	101.05
8 -inch	70.00	107.50
9 -inch	95.20	146.20
10 -inch	112.00	172.00
11 -inch	126.00	193.50
12 -inch	137.20	210.70

SWEDISH STEEL.—The difficulty, noted previously, of securing prompt shipments continues. The mills abroad have not been able to catch up with their back orders. Prices continue without change.

Flat bars are sold at 6 cts. per lb. base from store. The sizes in most common use are either sold at the base price or 1 ct. above.

Drill steel, either round, hexagonal or octagon, is 6 cts. per lb. for all sizes ⅝ to 2 ins. For sizes 2⅛ to 3 ins. 7 cts. is quoted and 3⅛ to 4 ins. is 7½ cts.

Hollow drill rod is held at 12½ to 15 cts. for the imported.

Anvils of Swedish steel are held at 9 to 9½ cts. per lb. They weigh from 80 to 600 lbs.

SWITCH POINTS.—The principal consumers are not buying with the expected freedom. A fair business is the rule.

The following prices are named f. o. b. mill for switch points in lots of ten or more pair: For 60-lb. rail, 10-ft. points, $16.25; 15-ft. points, $22.50; for 70-lb. rail, 10-ft. points, $18; 15-ft. points, $25; for 80-lb. rail, 10-ft. points, $25.50; 15-ft. points, $27.75; for 90-lb. rail, 15-ft. points, $30.50; for 100-lb. rail, $33.50. All of the above are furnished with three rods, except the 10-ft. points for 60 or 70-lb. rail, which have only two.

BARS AND MERCHANT SHAPES.—The reduction in price last month brought no increased volume of business. Trade, however, is fair at the following unchanged prices:

	Cts. per lb.
1 to 1⅞-in. round and square	1.90
1½ to 4-in. × ⅜ to 1-in.	1.90
1½ to 4-in. × ¼ to 5/16-in.	2.10
Rods—⅝ and 11/16 round & square	2.10
Angles:	
3-in. × ¼-in. and larger	2.10
3-in. × 3/16-in. and ⅛-in.	2.35
1½ to 2½-in. × ⅛-in.	2.35
1½ to 2¾-in. × 3/16-in. & thicker	2.10
1 to 1¼ × 3/16-in.	2.20
⅞ × ⅛-in.	2.40
¾ × ⅛-in.	2.50
⅝ × ⅛-in.	3.55
½ × 3/32-in.	4.35
Tees:	
1-in.	2.65
1¼-in.	2.45
1½ × 2½ × ¼-in.	2.15
1½ × 2½ × 3/16-in.	2.35
3-in. and larger	2.15
Beams	2.10
Channels, 3-in. and larger	2.10
Bands—1½ to 6 × 3-16 to No 8	2.35
Norway bars	3.60
Bessemer machinery, Steel	1.90
Cast steel, base	7.00
Special cast steel, base	14.00 to 15.00

LAG SCREWS.—Prices continue unchanged from last month. They are sold at a discount of 75 and 10% from list. Net prices are as follows:

	Price per 100 ¼-inch.	⅜-inch.	1-inch.
3½-inch	$1.17	$2.40	$5.00
4-inch	1.25	2.55	5.25
4½-inch	1.33	2.70	5.50
5-inch	1.40	2.85	5.80
6-inch	1.58	3.20	6.40
7-inch	1.73	3.50	7.00
8-inch	1.82	3.85	7.60
9-inch	2.05	4.10	8.20
10-inch	2.25	4.45	8.75
11-inch	2.40	4.70	8.30
12-inch	2.60	5.00	9.90

BOLTS.—Some new business has appeared. The discount on common carriage bolts, to the retail trade and larger consumers, is 70 and 7½% from list, on bolts ⅜ × 6 ins., and smaller. The lowest price is 65 and 5% discount for larger and longer bolts. Net prices are as follows:

Length in inches.	Diameter in inches—Net price per 100. ⅜	½	¾
4	$0.74	$1.22	$2.86
5	0.83	1.36	3.15
6	0.92	1.52	3.50
7	1.22	1.65	3.75
8	1.34	1.80	4.25
9	1.45	1.95	4.50
10	1.55	2.20	4.75
12	1.75	2.40	5.25
14	1.90	2.70	5.90
15	2.05	2.85	6.25
18	2.40	3.25	7.20
20	2.60	3.50	7.75

SPIRAL RIVETED PIPE.—Prices continue unchanged from the last report. The prices given below are f. o. b. factory, freight equalized, with New York City being figured at a discount of 50, 10 and 10% from list. They are for orders amounting to about $250. For large orders, of several carloads, prices are from 12½% to 20% cheaper.

Diameter in ins.	*Thickness of steel, Birmingham wire gage.	Price per 100 ft. With bolted joints complete. Plain.	Asphalted.	Galvanized.
3	20	$12.80	$14.21	$20.70
4	18	19.76	21.48	30.74
5	18	23.49	25.70	37.14
6	16	33.05	35.76	49.73
7	16	37.58	40.76	56.82
8	16	43.17	46.80	65.00
9	16	50.06	54.10	74.22
10	14	66.42	71.08	96.15
11	14	71.20	76.57	102.24
12	14	83.75	89.15	118.32
13	14	89.67	96.55	127.98
14	14	99.14	105.51	138.85
15	14	108.05	114.89	151.92
16	14	117.53	124.82	166.58
18	12	167.43	175.95	226.44
20	12	183.79	193.30	248.39
22	12	200.48	210.64	269.21
24	12	219.92	231.07	293.99
26	10	280.26	292.41	370.78
28	10	301.32	314.89	395.37
30	10	324.81	339.15	430.64

*Made in both lighter and heavier gages at corresponding differences in price.

FROGS.—For mill shipments, of ten or more, prices are as follows: Bolted frogs No. 7, for 60-lb. rail, $15; for 70-lb. rail, $16.50; for 80-lb. rail, $18; No. 8 frogs for 90-lb. rail, $21; for 100-lb. rail, $23. Plate frogs No. 7, riveted to ⅝-in. plate for 60-lb. rail, $18; for 70-lb. rail, $20; for 80-lb. rail, $21.50. No. 8 frogs bolted to a ¾-in. plate for 90-lb. rail are $25.50; for 100-lb. rail, $27.50.

CHAIN.—Business is fair and quotations continue without change. Prices of machine made chain, per 100 lbs., f. o. b. Pittsburg, are as follows:

Size in inches.	Proof.	BB.	BBB.
3-16	$8.25	$9.50	$10.00
¼	5.70	6.95	7.45
5-16	4.70	5.95	6.45
⅜	4.15	5.40	5.90
7-16	3.85	5.10	5.60
½ & 9-16	3.65	4.90	5.40
⅝	3.55	4.80	5.30
¾	3.45	4.70	5.20
⅞	3.35	4.60	5.10
1	3.25	4.50	5.00
1¼ & 1⅛	3.35	4.60	5.10

Hand-Made Chain.

Size in inches.	BBB crane chain.	BBB crane, dredge hoisting or steam shovel hoisting chain.	Special "Warwick" crane, hoisting steam shovel hoisting and dredge hoisting chain	[illegible] hoisting and dredge hoisting chain.
⅝	$7.95	$8.20	$9.15	[illegible]
¾	7.15	7.45	8.45	[illegible]
⅞	6.70	6.90	7.95	
1	6.15	6.40	7.45	
1⅛	5.75	5.95	6.90	
1¼	5.65	5.90	6.85	
1⅜ to 1⅞	5.55	5.75	6.80	

REINFORCING MATERIAL.

TRIANGULAR MESH.—The demand is good and some fair orders have been taken for dock work. Prices continue without change.

Style No.	Cross sec. area per ft. width.	Price per 100 sq. ft. Carload lots.	Smaller quantities.
4	.102	$1.03	$1.25
5	.077	.82	.99
6	.058	.65	.78
7	.041	.50	.61
23	.170	1.73	2.08
24	.142	1.48	1.80
25	.124	1.32	1.60
26	.110	1.20	1.45
27	.085	.98	1.19
28	.066	.81	.98
29	.049	.67	.81
31	.261	2.55	3.08
32	.225	2.20	2.67
33	.196	1.96	2.38
34	.146	1.51	1.82
35	.109	1.20	1.45
36	.075	.89	1.07
38	.380	3.62	4.38
39	.325	3.12	3.77
40	.283	2.74	3.30
41	.208	2.08	2.52
42	.151	1.58	1.92
43	.101	1.13	1.36

This material is made in regular widths of 18, 22, 26, 30, 34, 38, 42, 46, 50, 54 and 58 ins. Standard lengths of rolls are 150, 300 and 600 ft. Cutting to special length is charged extra.

BARS, CONCRETE REINFORCING.—The bar business is very fair, it is probably as active as any part of the finished steel trade. The agricultural implement makers have bought freely and the strictly reinforcing bar market is good. Prices, however, are not firm, in fact concessions of 5 to 10 points have been made. This is largely due to the competition of the bar makers who use scrap.

Some prices as low as 1.45 cts., Pittsburg, have been heard, but the general price is 1.50 cts. The extras are as follows:

	Cts. per lb. Plain.	*Deformed.
¾-inch and larger	1.50 to 1.60	1.55 to 1.65
⅝-inch	1.55 to 1.65	1.60 to 1.70
½-inch	1.60 to 1.70	1.65 to 1.75
⅜-inch	1.75 to 1.85	1.80 to 1.90
¼-inch	2.00 to 2.10	2.05 to 2.15

Bar from stock Pittsburg are usually cut to the required length without extra charge. Prices are as follows:

	Cts. per lb. Plain.	*Deformed.
¾-inch and larger	1.70 to 1.80	1.80 to 1.90
⅝-inch	1.75 to 1.85	1.85 to 1.95
½-inch	1.80 to 1.90	1.90 to 2.00
⅜-inch	1.95 to 2.05	2.05 to 2.15
¼-inch	2.20 to 2.30	2.30 to 2.40

*The price of deformed bars varies according to the shape and some are held much higher than these prices.

Twisted bars are held at an advance of 10 to 25 cts. over plain bars.

The base price on plain bars from store, Chicago, is 2 to 2.10 cts.

EXPANDED METAL.—Trade is fully as good as last month and there appears to be a better inquiry in the west. The prices given in the following table are for small quantities, delivered from warehouse, either New York or Pittsburg. For large lots concessions would be made:

Mesh, ins.	Gage (Stubs).	Section in sq. in. per ft. width.	Weight, in lbs, per sq. ft.	Size of Standard Sheets in ft.	[illegible] per sq. ft. f. o. b. New York.
½	18	.209	.74	8 × 3 or 6 ft.	5.5
¾	13	.225	.80	6 × 8 or 12 ft.	6.2
1½	13	.207	.70	4 × 8 or 12 ft.	5.5
2	12	.166	.56	5 × 8 or 12 ft.	4.8
3	16	.083	.28	6 × 8 or 12 ft.	2.4
3	10	.148	.50	5.25 × 8 or 12 ft.	2.6
3	10	.178	.60	6 × 8 or 12 ft.	2.8
3	10	.267	.90	4 × 8 or 12 ft.	3.8
3	10	.356	1.20	6 × 8 or 12 ft.	5.
3	6	.400	1.38	3.5 × 8 or 12 ft.	6.2
3	6	.600	2.07	4.66 × 8 or 12 ft.	8.3
4	16	.093	.42	4.5 × 8 or 9 ft.	2.8
6	4	.245	.84	5 × 8 or 12 ft.	3.7
6	4	.368	1.20	5 × 8 or 12 ft.	5.

IN[illegible]RLOCKING PLATES.—For interlocking [illegible] plates, of 24 gage black steel f. o. b. [illegible] central Ohio, the following prices are nam[illegible]:

L[illegible]h.	Per 100 sq. ft. Weight.	Price Flat Sheets.
Un[illegible] 4 ft.	100 lbs.	$11.00
4 [illegible] 6 ft.	160 lbs.	10.00
6 [illegible] 8 ft.	160 lbs.	9.50
8 [illegible] 0 ft.	160 lbs.	9.00
[illegible]0 ft.	160 lbs.	8.50

[illegible]ed sheets are held at an advance of $1 p[illegible] sq. ft. over flat.

[illegible] a desirable order prices might be sh[illegible] about 10%.

[illegible]ANDED LATH.—There is a very good d[illegible]d but the stocks are ample to supply th[illegible]esent needs. The price for carload lots g[illegible] below is f. o. b. mill central Ohio:

[illegible]oad Lots. Price in cts. per sq. yd.

Weight per sq. yd.	Black.	Painted.	Galvanized.
2¼ lbs.	11½	12	18½
2½ lbs.	12½	13	19½
3 lbs.	13½	14	20½
3.4 lbs.	14	14½	21

Small Lots from New York, Store. Prices in cents per sq. yd.

Black.	Painted.	Galvanized.
13½	14	20½
14½	15	21½
15½	16	22½
16	16½	23

This lath is packed 9 sheets to the bundle.

DIAMOND LATH FROM STORE.

Designation.	Gage.	Weight per sq. yd.	Price Per sq. yd. Black, cts.
A	24	4 lbs.	20
A Special	24	4 lbs.	18
B	27	2.9 lbs.	16½
B Special	27	2.9 lbs.	15
B B.	27	2.33 lbs.	14
Square Twist	24	4 lbs.	20
Diamond No. 24	..	3.75 lbs.	20
" No. 24 Special	..	3.00 lbs.	16½
" No. 26	..	2.66 lbs.	16½
" No. 26 Special	..	2.1 lbs.	14
Square Twist No. 27	..	2.75 lbs.	14½

CLAY PRODUCTS.

SEWER PIPE.—The demand is not as active as was expected. This applies particularly to some of the larger sizes. A new list on sewer pipe and specials went into effect May 2, and it is printed in the accompanying table. The price changes are chiefly in the smaller sizes.

Discounts continue unchanged from this "Eastern List" for standard sewer pipe are 83% for sizes up to 24-in.; 78% for 27 and 30-in.; 73% for 33 and 36-in. At these discounts the net price per foot in carload lots f. o. b. factory are as follows:

2 & 3-in.	$0.034	18-in.	$0.32
4-in.	.042	20-in.	.39
5-in.	.051	21-in.	.46
6-in.	.068	22-in.	.51
8-in.	.094	24-in.	.55
9-in.	.011	27-in.	.99
10-in.	.135	30-in.	1.20
12-in.	.17	33-in.	1.70
15-in.	.23	36-in.	1.89

The price changes are chiefly in the smaller sizes.

prices are for 9 × 9 blocks f. o. b. factory. It requires 258 blocks to lay 100 sq. ft. of roof surface and, in consequence, the price per 100 sq. ft. of roof surface would be $4 to $5 for the smooth blocks; $7.82 for the run of kiln, and $10.73 for the selected.

Vitrified tile unglazed, of the French or Spanish type, is sold at approximately $8.50 per 100 sq. ft. of roof surface f. o. b. factory. Glass tiles are sold at 60 cts. each. It requires 183 of these for 100 sq. ft. of roofing.

DUCT TELEPHONE.—Business in this department is probably better than in any other line of clay products. Small lots are sold at 4½ to 5 cts. for delivery in New York City, but on desirable orders this figure would be considerably shaded.

FLUE LININGS.—The discount from list f. o. b. mill is 85%, delivered in New York; in small lots, they can be had at 78%. Based on a discount of 85% at the mill net prices are as follows:

	Weight in lbs.	Price per ft.
4½ × 8½-in.	14	$0.04½
4½ × 13-in.	20	.068
4½ × 18-in.	40	.15
6 × 12-in.	22	.075
7 × 7-in.	15	.053
8½ × 8½-in.	18	.068
8½ × 13-in.	28	.098
8½ × 18-in.	45	.135
12 × 16-in.	45	.15
13 × 13-in.	38	.128
13 × 18-in.	57	.18
14 × 16-in.	60	.165
16 × 16-in.	65	.24
16 × 20-in.	80	.30
18 × 18-in.	75	.30

LUMBER.

Trade is improved, although it is not up to the sanguine expectations of many. Orders are being sharply competed for, but prices are in no way demoralized. Some increases are noted, but no general advance. Roofing boards of North Carolina pine are 50 cts. a thousand higher, and yellow pine ties have advanced about 3 cts. each. In Boston the price of spruce lumber is 50 cts. higher.

In Pennsylvania the mills report considerable activity and the demand is nearly up to expectations. In other parts of the country conditions are not as favorable, operations being at least 30% below normal. This means that should any sudden demand spring up it can be quickly supplied. The Yellow Pine Association reports a shortage of box stock, ceiling and partitions, but there is a surplus of roofing lumber.

The water freight rates from Southern points to cities on the North Atlantic seaboard are much higher, due to a decrease in the number of schooners engaged in this trade. A reduction was made last week by the Eastern railways in the coast-to-coast freight rate. This amounted to 5 cts. per 100 lbs., the new rate being 75 cts.

NORTH CAROLINA PINE.—Prices are practically without change from a month ago. The demand is fair, but not up to expectations. The ideas as to the price of some sellers are not as high as a month ago. For pieces 20 ft. long and less, in car at fair figures. For delivery from yard, New York and vicinity, classed "Merchantable" under the 1905 rules of the Association, prices are as follows:

Price per Thousand in Yard, New York.

Size.	Length: 20 ft. base.	21 to 25 ft.	26 to 30 ft.	31 to 35 ft.
8 in. wide and under by 8 in. thick and under.	$31	$32	$33	$34
10 in. wide by 10 in. thick and under.	33	34	35	36
12 in. wide by 12 in. thick and under.	36	37	38	39
14 in wide by 14 in. thick and under.	43	44	46	46
16 in. wide by 16 in. thick and under.	45	46	47	48

For pieces longer than 35 ft. and less than 40 ft. add from $4 to $8 to base price.

SPRUCE.—The demand continues excellent with practically no change in price. Canadian and Adirondack spruce is $24 to $25 for 2 × 4-in. to 2 × 8-in.; $26.50 to $27 is asked for 2 × 9-in. and 2 × 10-in. These prices are only for material in lengths of 12 and 14 ft.

West Virginia spruce is in good demand at unchanged prices. For large lots, on track or delivered in the harbor New York, prices are as follows:

Size.	*Length, 10 to 20 ft.
2 to 4 in. thick by 4 to 8 in. wide	$28.00 to $29.00
2 to 4 in. thick by 10 to 12 in. wide	29.00 to 30.00
Sizes.	Length, 12 to 16 ft.
1 × 6 to 1 × 10	$29.00

*For each additional ft. in length, over 20 ft., add $1 per M.

Higher figures are named for building orders in Boston, the advance being 50 cts. a thousand to $24. For 2 × 4-in. $21 to $21.50 is quoted; 2 × 3-in. to 2 × 7-in., $20.50, and 2 × 8-in., $22, although sales have been reported at $22.50.

FLOORING.—All flooring is sold at its actual width, but as laid, on account of the tongue and groove, it does not measure the full width. The following prices are for yard delivery of long-leaf yellow pine, the actual measurement being 13/16 × 2½-in., but counted as 1 × 3-in.; A, sap, $43 to $45; A, flat, $31.50 to $32.50; common, $25.50 to $26.

FACTORY FLOORING.—Prices of tongue and grooved factory flooring of North Carolina pine from 2 to 4 ins. thick and 5 to 9 ins. wide are unchanged at $19 per M. f. o. b. Norfolk, Va. On cars New York City it can be had for $22 to $23.

MAPLE FLOORING.—Prices are unchanged. Clear stock with 2-in. face is $48; No. 1 is $39.50 for 2-in.; $41.50 for 2¼-in., and $38 for 3¼-in. Factory flooring of maple ranges from $27 to $34.

SHINGLES.—Prices are unchanged except for Maine shingles. The following are quoted per M. for cypress shingles, New York City: No. 1 Hearts, 6 × 18-in., $7.50; Primes, 6 × 18-in., $6.50; No. 1 Hearts, 6 × 20-in., $10; Primes, 6 × 20-in., $8. Pine shingles, 2X clear, 6 × 18-in., are $4 and 4X best are $5.25. White cedar can be had at $5 for 16-in. Maine shingles are $3.50 to $4 at mill.

[continued from piles:] ft., $9.50; 75 to 79 ft., $11; 80 ft. and longer, $14.

In Norfolk the following prices are named for carload lots of yellow pine piles, in cts. per lin. ft.: 40 to 50 ft. long, 12-in. butt, 7 cts.; 14-in. butt, 9 cts.; 50 to 60 ft. long, 12-in. butt, 8 cts.; 14-in. butt, 9 cts.; 60 to 70 ft. long, 14-in. butt, 10 cts.

Creosoted piles with 8-in. butt are 16 cts. per lin. ft., 14-in. butt, 26 cts., and 18-in. butt, 34 cts.

Oak piles with 14-in. butt, 40 ft. long, are $7.50 to $8; 50-ft. long, $11 to $11.50, and 60 ft. long are $14.50 to $15.

CROSS TIES.—The demand has improved and prices have advanced about 3 cts. each. The following quotations are named for carload lots of yellow pine ties f. o. b. New York City:

	Cts. each.
7 × 9-in.—8 ft. 6 ins.	83 to 84
7 × 8-in.—8 ft. 6 ins.	79 to 80
7 × 9 in.—8 ft.	81 to 82
6 × 9-in.—8 ft.	77 to 78
6 × 8-in.—8 ft.	71 to 72

POLES.—See Line Construction.

LATH.—Eastern spruce slab lath is $3.75 to $4 per M., New York. The market in Boston is less firm than last month at $3.50 to $3.90.

SIDING.—Heart faced yellow pine siding is $32 to $34. Kiln dried sap siding can be had at $28 to $30.

GUM.—Prices are higher, for carload lots, loaded on cars f. o. b. Ohio River points quotations are as follows: Red Gum is $33 to $34 for first quality boards and $21 to $23 for common ones.

Sap gum, firsts and seconds, is $21 to $28 for boards less than 12 ins. wide. Common sap gum is $16 to $18.

HICKORY.—The demand is good and prices are unchanged and steady. For prime pieces, 1 to 2 ins. thick, wider than 4 ins., $50 to $66; 2¼ to 4 ins. thick, wider than 4 ins., $72 to $80; No. 1 common, 1 to 2 ins. thick, wider than 3 ins., $30 to $40; 2¼ to 4 ins. thick, wider than 3 ins., $45 to $55.

BLACK WALNUT.—Trade is fair. Prime stuff 1 to 2 ins. thick and over 6 ins. wide, is held at $95 to $115 per M.; No. 1 common, 1 to 2 ins. thick and over 4 ins. wide, commands $52 to $65.

MAHOGANY.—Prices of mahogany are unchanged. The best grade of Mexican is $150; second grade, $100 to $110. Cuban is sold at $175.

CHERRY.—The best grade of material, 1 to 2 ins. thick and wider than 6 ins., sells at $90 to $100; No. 1 common, 1 to 2 ins. thick and wider than 4 ins., is sold at $52 to $60.

WHITE PINE.—The finest grades of white pine, "Uppers," used as pattern stock, range from $100 to $110, from yard, for 1 to 2-in. thick. For carload lots of one grade concessions of about $5 a thousand would be made. Yard prices for 2 to 3-in. pieces are $105 to $115, and 4-in. pieces are held at $115 to $120 and higher. White pine classed "Selects" is from $5 to $10 per thousand cheaper.

BOX BOARDS.—White pine box boards are selling at $25.50 to $26.50 per thousand in carload lots. This includes the standard widths up to 10 in. A common variety of box board sells at $24 to $25.

PRICE LIST OF VITRIFIED SALT GLAZED SEWER PIPE.

Adopted **May 2, 1910.**

Diameter of pipe.	Price per ft.	Elbows and Curves each.	Slants 1 ft. or less per ft., long side.	Increasers and Reducers each.	Single Traps, each.	Two-piece Traps, per pair.	Channel Pipe, per ft.	Branches, Single: Outlets 12 ins. and less, Length, 1 to 2 ft.	Branches, Single: Outlets 12 ins. and less, Length, 2½ or 3 ft.	Branches, Single: Outlets over 12 ins.	Branches, Double: Outlets 12 ins. and less, Length, 2 ft.	Branches, Double: Outlets 12 ins. and less, Length, 2½ to 3 ft.	Branches, Double: Outlets over 12 ins.	Stoppers or Plugs each.	Flat Strainers each.	Approx. Weight per ft. Standard Pipe.
3 ins.	$0.20	$0.60	$0.60	$0.80	$1.60	....	$0.12	$0.80	$1.00	....	$1.00	$1.20	....	$0.07	$0.14	7 lbs.
4 "	.25	.75	.75	1.00	2.00	....	.15	1.00	1.25	....	1.25	1.50	....	.08	.16	9 "
5 "	.30	.90	.90	1.20	2.40	....	.18	1.20	1.50	....	1.50	1.80	....	.10	.20	12 "
6 "	.40	1.20	1.20	1.60	3.20	$4.20	.24	1.60	2.00	....	2.00	2.40	....	.13	.26	15 "
8 "	.55	1.65	1.65	2.20	5.50	6.60	.33	2.20	2.75	....	2.75	3.30	....	.19	.38	23 "
9 "	.65	1.95	1.95	2.60	6.50	7.15	.39	2.60	3.25	....	3.25	3.90	....	.22	.44	28 "
10 "	.80	2.40	2.40	3.20	8.00	8.30	.48	3.20	4.00	....	4.00	4.80	....	.27	.54	35 "
12 "	1.00	3.00	3.00	4.00	15.00	12.75	.60	4.00	5.00	....	5.00	6.00	....	.33	.67	45 "
15 "	1.35	4.05	4.05	5.40	....	18.75	.81	5.40	6.75	$9.45	6.75	8.10	$10.80	.45	.90	60. "
18 "	1.90	5.70	5.70	7.60	....	....	1.14	7.60	9.50	13.30	9.50	11.40	15.20	....	....	85 "
20 "	2.25	6.75	6.75	9.00	....	....	1.35	9.00	11.25	15.75	11.25	13.50	18.00	....	....	100 "
21 "	2.70	8.10	8.10	10.80	....	....	1.62	10.80	13.50	18.90	13.50	16.20	21.60	....	....	120 "
22 "	3.00	9.00	9.00	12.00	....	....	1.80	12.00	15.00	21.00	15.00	18.00	24.00	....	....	130 "
24 "	3.25	9.75	9.75	13.00	....	....	1.95	13.00	16.25	22.75	16.25	19.50	26.00	....	....	150 "
27 "	4.50	13.50	13.50	18.00	....	....	2.70	....	22.50	27.00	....	27.00	36.00	....	....	224 "
30 "	5.50	16.50	16.50	22.00	....	....	3.30	....	27.50	33.00	....	33.00	44.00	....	....	252 "
33 "	6.25	18.75	18.75	25.00	....	....	3.75	....	31.25	37.50	....	37.50	50.00	....	....	310 "
36 "	7.00	21.00	21.00	28.00	....	....	4.20	....	35.00	42.00	....	42.00	56.00	....	....	350 "

HOLLOW WALL TILE.—The demand is only fair. Quotations are unchanged from last month. For hollow wall building tile, f. o. b. factory, Perth Amboy, N. J., prices are as follows:

	Price per block, in cts.
4 × 12 × 12-in.	5.25
6 × 12 × 12-in.	6.6
8 × 12 × 12-in.	8.9
10 × 12 × 12-in.	10.5
12 × 12 × 12-in.	12.1

Fireproofing partition blocks are unchanged as follows:

	Price per block, in cts.
2 × 12 × 12-in.	4.4
3 × 12 × 12-in.	4.4
4 × 12 × 12-in.	5.
6 × 12 × 12-in.	6.6
8 × 12 × 12-in.	8.8

These prices are for what would be considered small orders—approximately carload lots. For quantities which exceed $1,000 worth of material, concessions will be made.

ROOFING TILE.—While the demand shows an improvement it is by no means up to expectations. Prices continue without change. The best grade of promenade roofing tile in flat blocks for high grade roofs is sold at $20 per M. for run of kiln and $30 per M. for selected. A cheaper form of tile with a smooth face can be had at $10 to $12, but it is not suitable for roof gardens. These lots New York, prices per thousand are as follows:

Size.		Size.	
2 × 4 in.	$18	2 × 10 in.	$21
2 × 6 in.	18	2 × 12 in.	22
2 × 8 in.	18		

Roofing boards, either ship lapped or tongue and grooved, are without change from last month, as follows:

Size.		Size.	
13/16 × 5½ in.	$17.50	13/16 × 9½ in.	$19.00
13/16 × 7½ in.	18.00	13/16 × 11½ in.	20.00

Random width, between any two, take the price of the widest.

A slight advance is noted in Boston prices, 6-in. roofing board being quoted 50 cts. higher at $18 to $18.50; 8-in. at $19 to $20, and 10-in. at $19.50 to $20.50.

SPRUCE BOARDS.—Prices continue without change. For Adirondack spruce delivered in car lots, New York, prices are as follows: 1 × 4-in., $24.50; 1 × 5-in., $25; 1 × 6-in. and 1 × 7-in., $25.50; 1 × 8-in., $26; 1 × 9-in., $28.50; 1 × 10-in., $28. Culls, or No. 3, can be had at $20 to $20.50.

Boston prices for "Merchantable" boards 5-in. and wider are $19.50 to $20 for short lengths and $21.50 to $22 for 12 ft.

LONG LEAF YELLOW PINE.—The demand for this kind of lumber in New York has increased greatly, being especially good for long and large sticks. So far, however, consumers are able to get what they want

OAK FLOORING.—The finest grades of red or white oak, quarter sawed flooring are $90 to $100 per M. in yard New York. Selected, quarter sawed flooring is $55 to $62, selected plain sawed is $48 to $52, and very common oak is $30.

HEMLOCK.—The price of hemlock does not seem to follow the trend observed in other kinds of lumber. The base price of Pennsylvania is $21, and of West Virginia is $20.50. We repeat the quotation of a month ago as follows:

Prices per Thousand f. o. b. cars New York.

Size.	Length: 10 ft.	12 ft.	14 ft.	16 ft.
2 × 4-in.	$23.00	$21.00	$21.00	$23.00
2 × 6-in. to 2 × 10-in.	21.00	21.00	21.00	18 to 20
3 × 4-in. to 12 × 12-in.	21.50	21.50	22.00	19 to 21
1 × 8-in.	....	18.00	18.00	18.00
1 × 10-in. & 1 × 12-in.	....	18.50	18.50	18.50

PILES.—The demand for piles continues to improve, and, for New York delivery, prices are unchanged from last month, as follows: 60 to 64 ft., $7; 65 to 69 ft., $8; 70 to 74 ft., $9.50; 75 to 79 ft., $11; 80 ft. and longer, $14.

FREIGHT RATES.—In the following list the carload freight rates on lumber, per 100 lbs., from Ohio River points to the principal cities are as follows: Baltimore, 16 cts.; Boston, 21 cts.; Buffalo, 10 cts.; Cleveland, 10 cts.; Detroit, 10 cts.; Indianapolis, 7 cts.; New York City, 19 cts.; Philadelphia, 17 cts.; Pittsburg, 10 cts.; Syracuse, 14 cts.; Toledo, 9 cts. From Norfolk, Va., to New York, 13 cts.; Boston, 15 cts. From Detroit, Mich., to New York, 19½ cts.; to Philadelphia, 17½ cts.

While there is every prospect that railway freight rates will be advanced the new tariff will not be in effect for 30 days. This will, of course, only affect rail transportation and a great deal of lumber is transported, part of the way, by water.

MILL PRICES, FOR CARLOAD LOTS AT OHIO RIVER POINTS.

YELLOW POPLAR, ROUGH.

Thickness.	Classification and Width: Prime, 8-in. and over.	Common, 4-in. and over.
1-in.	$54 to $56	$33 to $36
1½—2-in.	55 to 58	55 to 38
3-in.	60 to 64	....
4-in.	62 to 67	....

Poplar squares 3 × 3 in., 4 × 4-in., 5 × 5-in., 6 × 6-in., and 7 × 7 in., of good quality,

are $62 to $67; 8 × 8-in. and larger, where obtainable, are $72 to $77 per M.

CHESTNUT.

Thickness.	Classification and Width: A 1 6-in and wider.	Sound Wormy, 3-in. and wider.
1-in.	$43 to $45	$17.50 to $19
1½-in.	45 to 47	19.50 to 21
2-in.	46 to 48	20.50 to 22

WHITE ASH.

Thickness.	Classification and Width: A 1, 5-in. and over.	Common 3-in. and over.
1-in.	$45 to $48	$30 to $33
1½—2-in.	50 to 53	31 to 34
2½—3-in.	65 to 70	40 to 45
4-in.	70 to 75	40 to 45

Cull boards are $20 to $22 and planks $23 to $25.

WHITE OAK.

Thickness.	Classification and Width: A 1, 6-in. and over.	Common 3-in. and over.
1-in.	$45 to $47	$30 to $32
1½—2-in.	47 to 49	32 to 34

Cull boards are $18 to $21; plank, from $21 to $23.

Quartered oak is from 50 to 66⅔% advance over plain.

GLASS.

SKYLIGHT GLASS.—Business is fair and an exceedingly good demand is noted for wired skylight glass. Prices continue without change and are as follows for small lots from store:

Thickness, ins.	Price per sq. ft.
1/8	7 cts.
3/16	10 cts.
1/4	15 cts.

Wired skylight glass, ¼-in. thick, is 25 cts. per sq. ft.

VAULT LIGHTS.—Some very good business has recently been taken by manufacturers. In conjunction with the new subway work coming up in New York City there is an excellent outlook. For contractors furnishing their own moulds prices are unchanged at 4 to 5 cts. per lb. Bulls eyes 3 ins. in diameter are 3 cts., and square lights, 3½ × 3½, are 5 to 6 cts.

WINDOW GLASS.—Tht output has been materially reduced through the closing down of several factories. While the demand is fair, it is not as large as last month. Prices continue without change, the extreme discount to jobbers being 90% for all sizes of single and double strength. This applies to jobbers list October 1, 1903. The net prices per box of 50 sq. ft. at the discount named are as follows.

American Window Glass.

Size of Glass, Ins.	Single Thickness. Price per box, 50 sq. ft. A.	B.
6 × 8 to 10 × 15	$2.40	$2.20
11 × 14, 12 × 13 to 14 × 20	2.52	2.40
10 × 26 to 16 × 24	2.70	2.52
18 × 22, 20 × 20 to 20 × 30	2.87	2.64
15 × 36 to 24 × 30	2.96	2.70
26 × 28 to 24 × 36	3.14	2.79
26 × 34, 28 × 32, 30 × 30 to 30 × 40	3.47	2.94
32 × 38, 34 × 36 to 30 × 50	4.00	3.46
30 × 52 to 30 × 54	4.27	3.76

PLATE GLASS.—Business is fair, the demand for the larger sizes being very good. Prices are without change at 90% discount for all sizes. The following price list gives the net price of polished plate glass, boxing being charged extra:

NET PRICES OF POLISHED PLATE GLASS IN DOLLARS.

Length. Feet.	Width, Feet: 1	1.5	2	2.5	3	3.5	4	4.5	5	6	7	8	9	10
1	0.27	0.42	0.55	0.73	0.95	1.14	1.30	1.51	1.68	2.64	3.15	3.60	4.14	4.60
1.5	....	0.66	0.95	1.20	1.58	2.31	2.64	3.04	3.38	4.14	4.83	5.52	6.28	7.05
2	....	....	1.30	1.75	2.64	3.15	3.60	4.14	4.60	5.52	6.51	7.52	8.64	9.80
2.5	....	....	....	2.82	3.38	4.03	4.60	5.18	5.82	7.05	8.40	9.80	11.10	12.30
3	....	....	....	....	4.14	4.83	5.52	6.28	7.05	8.64	10.30	11.80	13.50	15.00
3.5	....	....	....	....	....	5.70	6.51	7.41	8.40	10.30	12.10	14.00	15.80	17.50
4	....	....	....	....	....	....	7.52	6.64	9.80	11.80	14.00	16.00	18.00	20.00
4.5	....	....	....	....	....	....	....	9.93	11.10	13.50	15.80	18.00	20.30	22.50
5	....	....	....	....	....	....	....	....	12.30	15.00	17.50	20.00	22.50	25.00
6	....	....	....	....	....	....	....	....	....	18.00	21.00	24.00	27.60	30.60
7	....	....	....	....	....	....	....	....	....	....	24.50	28.60	32.20	35.70
8	....	....	....	....	....	....	....	....	....	....	....	32.70	36.80	42.00
9	....	....	....	....	....	....	....	....	....	....	....	....	41.80	46.40
10	....	....	....	....	....	....	....	....	....	....	....	....	....	52.50
11	5.06	7.92	10.80	13.80	16.50	19.30	22.00	24.80	28.10	33.70	39.70	45.40	52.00	71.50
12	5.52	8.64	11.80	15.00	18.00	21.00	24.00	27.60	30.60	36.80	43.30	50.40	70.20	78.00
13	6.05	9.56	13.00	16.30	19.50	22.80	26.60	29.90	33.20	40.20	47.80	67.60	76.10	123.50
14	6.51	10.30	14.00	17.50	21.00	24.50	28.60	32.20	35.70	43.30	51.50	72.80	119.70	161.00
15	....	....	....	....	....	26.80	30.60	34.50	38.30	46.40	68.30	78.00	155.30	180.00
16	....	....	....	....	....	36.40	41.60	46.80	52.00	62.40	72.80	121.60	172.80	224.00
17	....	....	....	....	....	38.70	44.20	49.80	55.30	66.30	77.40	156.40	214.20	323.00
18	....	....	....	....	....	41.00	46.80	52.70	58.50	70.20	119.70	172.80	307.80	342.00

MILL SUPPLIES.

SHAFTING.—There is more new business in prospect than for a long time. The mills, too, are working on old contracts so the outlook is encouraging. Prices are unchanged at 55% discount for carload lots and 50% discount for less than carloads. The following net prices per foot are based on the 50% discount: ¾-in., 4.15 cts.; 1-in., 7.30 cts.; 1¼-in., 11.50 cts.; 1½-in., 15 cts.; 1¾-in., 20.50 cts.; 2-in., 25.50 cts.; 2¼-in., 38.75 cts.; 2½-in., 41.75 cts.; 2¾-in., 50 cts.; 3-in., 60 cts.; 3½-in., 90 cts.; 4-in., $1.27½; 4½-in., $1.78; 5-in., $2.35; 5½-in., $3; 6-in., $3.85.

BELTING.—The demand is good, but tanners complain that the difference between the cost of hides and selling price of leather is very narrow. In the line of rubber there is little good news regarding the raw material, but it looks as though the speculators might soon reach the end of their rope. Prices continue without change, the discounts on rubber belting being as follows: Competition, 70 and 10%; standard, 60 and 10%; best grades, 50 and 10%.

The discounts for both single and double leather belting are unchanged from a month ago: Extra heavy, 55%; heavy, 60%; medium, 60 and 10%; light, 60, 10 and 10%; shoulder, 75%; standard, 70 and 10%.

The following prices of leather belting are based on the discounts given above:

LEATHER BELTING, PRICE PER FT.

Width, ins.	Extra heavy.	Heavy.	Light
1	$0.11	$0.096	$0.078
1¼	.162	.144	.117
2	.215	.172	.156
2½	.27	.24	.195
3	.325	.288	.235
3½	.38	.337	.275
4	.435	.385	.31
5	.54	.48	.39
6	.65	.58	.465
7	.76	.675	.55
8	.87	.78	.62
9	.97	.86	.70
10	1.08	.96	.78
11	1.20	1.06	.85
12	1.30	1.15	.94
14	1.52	1.35	1.09
16	1.73	1.53	1.28
18	1.95	1.73	1.40
20	2.16	1.92	1.56
22	2.37	2.10	1.72
24	2.60	2.30	1.87
26	2.82	2.50	2.05
30	3.25	2.90	2.33
36	3.92	3.45	2.82
48	5.00	4.60	3.75

CHAIN BELTING.—Prices are unchanged, as follows: From 3 HP. to 10 HP., 30-in. centers complete, with two sprockets, $7 to $8 per HP.; from 10 HP. to 25 HP., 36-in. centers complete, $5 to $6 per HP.; from 25 HP. to 100 HP., 60-in. centers complete, $4 to $5 per HP.; from 100 HP. to 500 HP., 72-in. centers complete, $3 to $4 per HP.

PACKING.—Valve and stuffing box packing is unchanged at the following prices per pound: Asbestos wick and rope, 13 cts.; sheet rubber, 11 to 13 cts.; pure gum rubber, 40 to 45 cts.; red sheet, 40 to 50 cts.; Jenkin's "96" packing, 60 cts. Cotton packing can be had at 16 to 25 cts; jute at 3¼ to 3½ cts., and Russian at 9 to 10 cts.

GRAPHITE LUBRICANTS. — The prices, per pound, in barrel lots, to the small consumers, are given as follows: Engine flake graphite, 12 cts.; oiled graphite, 20 cts.; car box grease, 8 cts.; gear grease, for electric cars, 4¼ cts.; cup grease, 15 cts.; axle grease, 8¼ cts.; automobile graphite grease, 16 cts.

Large consumers and jobbers can obtain considerable concession from these figures.

FIRE HOSE.—The standard grade of underwriter's cotton rubber-lined hose, ⅝ ins. in diameter, warranted 350 lbs pressure, is sold in 50-ft. lengths, complete with couplings, at 65 cts. per ft. Common hose, 2½ ins. in diameter, tested to 200 lbs. pressure, is 35 cts. per ft.

HIGH SPEED STEEL.—It is evident that the consumption of high speed steel is not as large as a few months ago. Prices are without change at 65 cts. per lb. for the better known brands.

LUBRICATING OILS.—Business is fair and probably better than a month ago, but still there seems to be some uncertainty. The following prices prevail to large consumers of approved credit who buy in 5-bbl. lots or larger:

	Cts. per gal.
*Cylinder, light filtered	23 to 32
*Cylinder, dark	20 to 27
*Cylinder, steam refined	14 to 22
Neutral Oils, filtered:	
Stainless white, 32 to 34 gravity	28 to 29
Lemons, 33 to 34 gravity	17 to 19
Dark, 32 gravity	15 to 18
Crank case oil	15 to 17

*Prices vary according to test.

COTTON WASTE.—The demand is limited. The high price is evidently having a marked effect in curtailing consumption. In a small way waste command 9 to 10 cts. per lb.

PAVING MATERIALS.

ROAD OILS.—The demand for road oil and binder is enormous. Prices are steady, 30% asphaltum oil being quoted at 4 cts. per gal. Texico macadam asphalt 90 to 95% is 11 cts. per gal., in bulk f. o. b. New York or Philadelphia. A or X Tarvia in bbls. is 8½ cts. to 9½ cts. per gal.; B grade in bbls. is 7 to 8 cts. per gal. The city of Boston recently purchased 400,000 gals. of oil for street work. The contract was awarded on the ground that the product should be odorless, 3.9 cts. per gal. being paid for emulsion and 4.95 cts. per gal. for emulsified oil.

GRANITE BLOCK.—Business is good, but there is no scarcity of material. Some of the largest work has been contemplated for a long time and sellers have fair size stocks on hand. Prices continue firm, for Cape Ann granite delivered in New York City, old style block, $1.60 to $1.75 per sq. yd. is quoted. Dressed block to lay with ¼-in. joint is $2 to $2.10 per sq. yd. Recent tenders were made in Fall River, Mass., to deliver 300,000 blocks at prices ranging from $68.75 per thousand to $74.90 per thousand for the regular width.

ASPHALTUM.—Prices continue without material change. We find Trinidad being quoted at $25 per net ton. This price is for the best grades. Concessions of $2 to $3 per ton being attainable in other brands. California asphaltum is $26 to $30 per net ton f. o. b. New York and $16 to $19 at point of shipment.

PAVING BLOCKS, WOOD.—Wood block paving is being sold to smaller municipalities than perhaps ever before. The demand is good. Quotations are practically without change; for long leaf yellow pine blocks having not less than 20 lbs. of oil per cu. ft. prices per sq. yd. f. o. b. New York are as follows: 3-in. thick, $1.85; 3½-in. thick, $2.05; 4-in. thick, $2.25. Concessions might be obtained for large orders.

VITRIFIED BRICK.—Prices per sq. yd. for both brick and block average from 55 to 75 cts. f. o. b. at point of shipment. The demand is said to be good.

METALS.

COPPER.—Prices are considerably lower than last month, due to an absence of business and large surplus of metal pressing on the market. A drastic move was made by the Calumet & Hecla Co., which reduces its price from 13.75 to 13 cts. This brought business from domestic consumers and enough of this high grade Lake was sold to foreigners so that the interest quickly advanced its quotation to 13.25 cts. It is an unusual thing for this company, the most conservative in the trade, to make its quotation known. Sellers of electrolytic have been obliged to reduce their figures gradually and sales for export have been made as low as 12.50 cts. cash, New York. No doubt domestic business would be taken at that figure, but there is none offering. The feeling in the copper market is that prices will have to go lower before there is any decided upward trend. Business in Europe is excellent, practically up to normal, and aside from the wire business trade in America is surprisingly active—perhaps 80% of normal. Production, however, continues to increase and surplus stocks are again piling up. The Copper Producers' Association, which compiles the statistics of copper production and consumption, threatened, in an unofficial way, to cease publication of these figures. This, however, aroused such a storm of protest that the plan was quickly abandoned. They evidently felt that the figures for several months to come would be worse even than they had been in the past. As stated, Lake can be had at 13.25 cts.; electrolytic at 12.37½ to 12.50 cts., and casting 12.25 to 12.50 cts. Exports during April were 13,062 tons.

ROOFING COPPER.—The demand is excellent and the leading mills are running practically full time. Prices are steady, although sales have been made at 18 cts., while the nominal price is 19 cts.

LEAD.—Business in this line has been very quiet except as far as corroding lead is concerned. The paint trade has been especially active, and this has called for large quantities of lead of this character. It is interesting to note, too, that the white lead trade during the business depression of 1907 was practically normal. The American Smelting & Refining Co. has, during the month, stubbornly refused to lower its quotation and is now selling at 4.50 cts. Outside interests are taking the limited business offering all over the country, their quotations being 4.40 cts. New York.

LEAD PIPE.—Trade is not at all active Prices continue without change at 5.75 cts. to the larger consumers and jobbers and 6.40 cts. to small consumers.

SHEET LEAD.—The demand is light, prices being unchanged at 6.25 cts. to the large trade and 6.75 cts. to small consumers.

LEAD WOOL.—Prices in New York continue unchanged at 8.25 cts.

PIG TIN.—The Statistical position of tin is extremely unfavorable. Stocks here are large and the demand has fallen off. In Europe, too, stocks are larger than normal, but there the demand is relatively better. Within the next 60 days there may be some violent changes in the tin market as several sellers have made contracts to deliver tin within that period at material concessions from the figures now ruling. These contracts have been large, and unfortunately made by some of the weaker sellers there be an advance a scramble to be inevitable. A decline, on the would be hastened by the very sales. Business during the month taken as high as 34 cts., but sales being made at around 33 cts. during April were exceptionally

SPELTER.—Business was extr during the month. A slight adv occurred about the middle of was all lost and spelter is no easier than a month ago, selling 5.60 cts. New York, and 5.45 to Louis. Brass Mill Special is in mand and is selling at 10 to 15 po the price of Prime Western.

MISCELLANEOUS METALS.—S of metals and metal products ca tained from jobbers' stores New the following prices:

	Per lb.
Bismuth	2.25
Brass tubes, iron pipe sizes:	
½-in.	.19
¾ to 3-in.	.18
3½-in.	.19
4-in.	.20
Brass, sheets	.14¾
Brass, rods	.14¾
Solder, ½ & ½ guaranteed	.22
Zinc sheets	.08½
Manganese bronze rods	.16
Manganese bronze in crucible form	.14
Monel metal, ingot	.16

OLD METALS.—Prices have declined. Miscellaneous lots of scrap metal amounting to about a ton can be sold to dealers in New York at about the following prices:

	Cts. per lb.
Copper, heavy cut & crucible	11.00 to 11.25
Copper, heavy and wire	10.75 to 11.00
Copper, light and bottoms	9.75 to 10.00
Brass, heavy	7.25 to 7.50
Brass, light	6.00 to 6.25
Heavy machine composition	10.00 to 10.25
Clean brass turnings	7.00 to 7.25
Composition turnings	8.25 to 8.50
Lear, heavy	[illegible] to 3.50
Lead, tea	[illegible] to 3.25
Zinc, scrap	[illegible] to 3.75

LINE CONSTRUCTION.

TELEGRAPH WIRE.—The demand for iron telegraph wire is not as great as it was. One reason for this may be the announcement made by the Western Union that hereafter the main lines should be built of copper whenever practicable. It is noticeable that copper is being used for telephone work more than ever before. This is largely on account of its low price. Prices of iron and steel wire are unchanged as follows, the sizes being given in Birmingham wire gage and the price in cts. per lb. Nos. 6 to 9 is 4¾ cts.; Nos. 10 to 11, 3⅛ to 4½ cts.; No. 12, 3¼ to 4⅝ cts.; No. 14, 3¾ to 5⅛ cts. Actual freight is allowed from point of manufacture, Trenton, N. J., when it does not exceed 25 cts. per 100 lbs.

COPPER WIRE.—Prices are fully one-half ct. lower than last month. This is due to a reduction in the price of ingot copper. At the same time there is active competition for business and, to say the least, the makers of wire are not acting together as they were. The demand is good, better than at any time since 1907. The base price, No. 8 wire, is 14.25 cts. and this could probably be shaded. Grooved trolley wire is held at an advance of 0.25 cts. per lb. over the base price. A more comprehensive statement of conditions in the copper market will be found in the review of that market under the heading "Metals."

ALUMINUM.—Trade is quiet in the wire line; some business is developing for high tension work in the far West but in general the demand is limited. Prices are without change at 31 cts. base.

INSULATORS.—The demand is fair and prices are without change. Glass insulators in lots of more than 1,000 and less than 10,000 are sold at the following prices per 1,000: Double petticoat 20 oz., $33; Western Union, $30.25; No. 2 cable, $53.90; No. 4 cable, $210; Muncie type, 7-in., $236.50; No. 3 triple petticoat, 4½-in., $90.75.

POLES.—Prices continue without change. White cedar poles f. o. b. Rex, Mich., freight rate to Chicago 12 cts., are quoted by the Backus-Judd Lumber & Cooperage Co., Minneapolis, Minn., as follows:

Length in feet.	Price each, Diameter at top: 5-in.	6-in.	7-in.
25	$0.60	$1.00	$1.50
30	....	1.55	3.50
35	....	3.75	5.00
40	....	5.25	7.00
45	....	7.25	9.50
50	....	10.00	11.00

Cedar poles shipped from the state of Washington are quoted by R. E. Dowie Pole Company, 432 New York Block, Seattle, Wash., as follows:

Length in feet.	Diameter at top.	Price each
30	8-in.	$2.40
35	8-in.	2.80
40	8-in.	3.20
45	9-in.	4.50
50	9-in.	5.00
55	9-in.	5.50
60	9-in.	6.00
65	9-in.	9.75
70	9-in.	10.50
75	9-in.	11.25
80	9-in.	12.[illegible]

Chestnut poles, f. o. b. Mechanicville, N. Y., are quoted by T. C. Luther of that place as follows:

Length in feet.	Price each, Diameter at top: 5-in.	6-in.	7-in.
25	$1.50	$2.00	$2.75
30	2.50	2.75	3.25
35	2.75	3.25	4.00
40	3.25	4.00	5.50
45	4.00	5.50	7.50
50	5.50	7.50	9.50

FIR CROSS ARMS.—Prices are unchanged and are represented by the following quotations:

Size 3¼ × 4¼ in.	Pacific Coast.	Chicago.	New York.
3 2-pin	8	13½	15½
4 4-pin	11	18½	21
5 4-pin	16	26½	28½
6 4 and 6-pin	20½	31½	36
8 6 and 8-pin	28	43	48½
10 8, 10 and 12-pin	37	55½	67½

(Price per arm in cts.)

OILS AND PAINTS.

PETROLEUM PRODUCTS.—More or less of an improvement in the demand is noted, but prices are practically stationary. The Standard Oil Co. quotes prices of crude oil in bbls. at the wells as follows: Pennsylvania second sand and Tiona, $1.40; Mercer black, 90 cts.; Corning, 79 cts.; New Castle, 87 cts.; Indiana, 79 cts.; Illinois, 60 cts.; heavy, below 30 gravity, 52 cts. In the local market petroleum from tank wagon delivery is 8½ cts.; auto-naptha and stove gasoline is 13¾ cts.

Fuel oil in tank cars is in better demand, but is selling at practically unchanged prices. At seaboard points it is quoted at 95 cts. to $1.05 per bbl. of 42 gals.

LINSEED OIL.—The consumption is fair, although not up to normal, and prices are steady at the high level established a month ago. City raw is quoted at 82 to 83 cts. per gal.; out of town raw is 81 to 82 cts. per gal.; Calcutta oil is 90 cts. per gal. The present advance is laid to the high prices of flaxseed, which continues to prevail. There is every prospect, however, that the next season's crop will be a record breaker, as there has been an enormous demand for seed and the acreage planted will probably be double, in some parts of the country at least, what it ever was before. In the meantime several months must elapse before this seed can be brought to the crushers, and during that interval prices will be high.

SPIRITS TURPENTINE.—The demand continues fair and prices are steady and unchanged from last month. In 5-bbl. lots spirits can be had at 62½ to 63 cts. per gal., New York. In Savannah, Ga., the price is 58½ cts. and in Charleston, S. C., the price is 59 cts.

PAINTS.—The demand for paint of all kinds continues to improve. Trade is active and it is significant to note that the leading seller of pig lead reports, through its subsidiary companies, an unprecedented demand for paints of all kinds. Mixed paints are somewhat higher than last fall, due entirely to the cost of linseed oil.

Prices of white lead and oil are unchanged. For lots of 500 lbs. or over, in 100, 250 and 500-lb. kegs, 7¼ cts. per lb. is quoted, in 25 and 50-lb. kegs, 7½ cts. per lb. Red lead and litharge in bbls., half bbls. and 100-lb. kegs is 7¼ cts. per lb.

Brown metallic is quoted at $16.50 to $22 per ton; red metallic, $14 to $18 per ton. American Venetian red in ton lots or larger is 75 cts. to $1.25 per 100 lbs., and English Venetian red, $1.15 to $1.60 per 100 lbs. Graphite bridge paints are in excellent demand at prices ranging from $1.10 to $1.25 for standard brands. It is rumored that prices might work higher later in the season. Hydrex preservative paint is 75 cts. per gal. in barrel lots, New York City.

MISCELLANEOUS.

PAPER.—The demand is good in all parts of the country. Prices of raw material are advancing. Sellers' quotations are without change from a month ago as follows:

Tarred Paper:	Per roll of 108 sq. ft.
Standard 2-ply, 40 lbs.	$0.45
Extra heavy, 2-ply, 45 lbs.	.55
Standard 3-ply, 60 lbs.	.65
Extra heavy 3-ply, 70 lbs.	.75

Rozin Sized Sheathing:	Per roll of 500 sq. ft.
Light, 35 lbs	$0.38
Medium, 30 lbs	.45
Heavy, 40 lbs	.60

PITCH.—The inquiry is large and consumers are specifying freely on old orders. The best grades of pitch are sold at $14 per net ton, in carload lots. For small quantities $16 per net ton is asked.

ROOFING CEMENT.—Prices are unchanged and the demand is good. Texaco is quoted at $25 per ton.

OAKUM.—Consumers are buying in fair quantities. Prices continue unchanged, as follows: Best grade, 6¼ cts.; U. S. Navy, 5¾ cts.; common or plumbers' oakum, 2¼ cts. per lb.

ROPE.—The market is strong, prices having advanced and are firm at the higher figures. The demand is good. The best grade of pure Manila is now 8½ to 9 cts.; second grade, 8 to 8½ cts.; competitive grades, 7½ to 8 cts. Another advance is noted in the price of pure Sisal which is now quoted at 7¾ to 8 cts.; second grade is 6½ to 7 cts. per lb. Jute rope in commercial sizes is 5½ to 6 cts. per lb.

ROOFING SLATE.—Some of the largest sellers of slate are not only very busy but look forward to a continuance of the good trade. The supply is sufficient for present requirements, but at the same time there is no surplus likely to press on the market. The following quotations are per "square" or one hundred sq. ft. of roof surface in carload lots f. o. b. quarry stations of the size in most general use:

	Per 100 sq. ft.
Vermont, sea green	$4.00 to $4.50
Pennsylvania, Bangor Ribbon	4.00 to 4.50
Maine, Brownsville No. 1	6.00 to 7.75
Maine, Brownsville No. 2	5.60 to 6.00
Red	10.50 to 12.25
Unfading green	4.50 to 5.00
Genuine Bangor	5.00 to 6.50

WATERPROOFING.—The prices for carload lots, f. o. b. cars New York, are as follows: Hydrex waterproofing felt, $1.25 per 100 sq. ft.; Hydrex compound "A," 26 cts. per gal.; Hydrex compound "B," 18 cts. per gal.

Texaco waterproofing cement is $30 per ton, in car lots, f. o. b. cars New York or Philadelphia.

Asphaltum, for waterproofing, is sold at $25 to $27 per net ton.

VAULT LIGHTS.—See Glass.

EXPLOSIVES.—Dynamite of the kind usually used by contractors, is approximately 11 to 13 cts. per lb. f. o. b. factory in ton lots. Blasting powder, classified as "soda" grade, is sold at $1.20 to $1.40 per keg or 25 lbs. in lots of 10,000 lbs. The following prices prevail on Trojan in carload lots, minimum 24,000 lbs., f. o. b. Pasific Coast points: No. 1, 13½ cts.; No. 1, 10½ cts.; No. 3 10 cts. They have a disruptive force equivalent to 60%, 40% and 30% of nitro-glycerine.

Exploders, per hundred, are sold at the following prices: 4 ft., $3.60; 6 ft., $4.10; 8 ft., $4.60; 10 ft., $5.10; 12 ft., $5.60; 16 ft., $6.60; 20 ft., $7.50; 24 ft., $9.40; 30 ft., $12; 36 ft., $14.60.

Caps in lots of 10,000 are $7 to $8 per thousand.

Blasting machines for 10 holes are $12; 25 holes, $20; 50 holes, $40; 100 holes, $60.

LITHERAGE LIMITS.—The free delivery or "Litherage Limits" in New York City are as follows; In Manhattan, from a point opposite the Fort Lee ferry south along the Hudson River around the Battery and north along the East and Harlem rivers to the Jerome Ave. bridge at 155th St. In New Jersey, south from Fort Lee ferry to Bayonne City; points on the north and east shore of Staten Island between Bridge Creek (Arlington) and Clifton, both inclusive, and including Elm Park, Eristina and Shooters Island. In Brooklyn, from 69th St., Bay Ridge, north to Pot Cove, Astoria, Long Island City.

ASBESTOS.—A good demand is noted and prices continue without change. Asbestos building felt and sheathing in less than ton lots is 3½ cts. per lb. for the light, weighing from 6 to 30 lbs. per 100 sq. ft.; 4 cts. per lb. is charged for the heavy, weighing from 45 to 56 lbs. per 100 sq. ft.

Millboard is made in standard sheets, 40 × 40 ins., and 42 × 44 ins. It varies in thickness from 1/32 to ½-in. and in weight from 2 to 27 lbs. per sheet. The net price in 100-lb. lots is 5 cts. per lb.

Transite, asbestos wood, used for fireproofing, ventilators and smoke jacks, comes in standard sheets, 36 × 48 ins., 42 × 48 ins., and 42 × 96 ins. The prices f. o. b factory, Nassau, N. H., are as follows:

Thickness.	Weight.	Price.
⅛-inch	1 lb.	$0.08
3/16-inch	1½ lbs.	.12
¼-inch	2 lbs.	.16
5/16-inch	2½ lbs.	.20
⅜-inch	3 lbs.	.24
7/16-inch	3½ lbs.	.28
½-inch	4 lbs.	.32
9/16-inch	4½ lbs.	.36
⅝-inch	5 lbs.	.40
¾-inch	6 lbs.	.44
⅞-inch	7 lbs.	.48
1 inch	8 lbs.	.52
1¼ inches	10 lbs.	.56
1½ inches	12 lbs.	.64
1¾ inches	14 lbs.	.72
2 inches	16 lbs.	.80

INDUSTRIAL NOTES.

(Continued from page 186.)

THE U. S. LIGHT & HEATING CO. have contracted with the Harrison Engineering Co., New York City, for the heating and ventilating of their plant at Niagara Falls. The five buildings are to be heated throughout by Harrison Aertube heaters. Producer gas will be burned for fuel, and the heaters will utilize the waste heat from the many lead melting furnaces. The air, 120,000 cu. ft. will be supplied per minute, will be distributed throughout the five buildings by special electric cone fans.

RAILWAY EARNINGS continue to increase. According to the "'Chronicle," the gross earnings for 53 roads during March, 1910, aggregated $65,155,888, an increase of $8,795,473, or 15.61% compared with the same month last year. The gain for the first three months this year was approximately the same, being 15.23%. The net earnings for February, 1910, on 231,000 miles of road were $56,204,145, an increase of $7,293,722, or 14.91%, compared with last year.

AN UNUSUALLY LARGE CONTRACT for reinforced concrete pipe has been awarded to the Cuban Engineering & Contracting Co., 17 West 42d St., New York City. This involves the laying of some 200,000 ft. of Merriweather System continuous reinforced concrete pipe in Havana, the sizes varying from 36 to 84-in. The city of Brantford, Ont., has likewise contracted for 7,000 ft. of 30 to 45-in. pipe. Other installations are under way in the cities of East Orange, Newark and Paterson, New Jersey.

AS A STEAM AUXILIARY to its new water power station, the White River Light & Power Co., Noblesville, Ind., is adding a 300 KW. Westinghouse high pressure steam turbine set. The new unit will be installed at the generating station, two miles above Noblesville, on the White River, furnishing three-phase, 60-cycle power at 2,300 volts for lighting and power. The turbine is to operate at a steam pressure of 150 lbs., exhausting into a vacuum of 28 ins. Babcock & Wilcox boilers of 400 HP. are installed, using Indiana slack coal at $1.75 per ton.

TELEPHONE TRAIN DISPATCHING will be materially extended on the Great Northern Railway in the near future. This road has recently ordered apparatus for telephone train dispatching to be installed on six more divisions. Telephones are now used for train dispatching on approximately 2,100 miles of line, and the new installations will cover nearly 2,000 miles of line. When the new equipment is installed, telephone train dispatching will extend over the entire main line of the Great Northern from Minneapolis and Superior to Seattle and Vancouver.

STEAM BOILER INSURANCE is in reality an insurance against accidents as the compilation of the premiums received, and loss and claim expenses show that the total losses were only 9% of the premiums. This was for thirteen companies operating in the United States, being practically all of the companies now doing business. In other words, steam boilers when insured are so well inspected that explosions are of rare occurrence. The total premiums received for this kind of insurance for 1909 amounted to $2,300,000.

A RAPID INCREASE in the cost of Transatlantic steamers has, and is, exciting considerable comment in shipping circles, especially because there is a prospect of building two more large competing boats the size of the Mauretania. When the Auguste Victoria was built in 1899 at a cost of $1,000,000 it was thought to be a great price to pay for a steamship. Then the Deutschland was built at the astonishing cost of $2,500,000, and a little later the Kaiserin Auguste Victoria cost $3,500,000, but the twin vessels Mauretania and Lusitania doubled this at a cost of $7,000,000.

THE TURNER CONSTRUCTION CO., 11 Broadway, New York City, announces it has been awarded the contract for constructing Model Factories Nos. 5 and 6 for the Bush Terminal Co., South Brooklyn, N. Y. These buildings will be of reinforced concrete throughout, 700 × 75 ft., six stories high, having a connecting wing 250 × 100 ft., which is also six stories in height. The total floor area in the two factories will be 18 acres. The company also has the contract for the erection of a 12-story reinforced concrete warehouse, 175 × 110 ft., for the Robert Gair Co., Washington St., Brooklyn, N. Y.

THE WORLD'S COPPER PRODUCTION during 1909 was, according to H. R. Merton & Co., London, 939,255 gross tons, compared with 754,310 tons during the preceding year. These figures, of H. R. Merton & Co., are generally accepted in copper trade as the most reliable statistics other than those compiled by the U. S. Government, which, however, are generally published in September of the following year. Notable increases were made in the production of copper in the United States amounting to 67,000 tons, Mexico 17,000 tons, and Japan 4,000 tons. The older producing countries, such as Chili, Germany and Spain, showed a decrease. The production in Africa, however, was double that of the preceding year, and with the development of the Tangangika concession further increases may be expected.

BERLIN LABOR TROUBLES, in the building trades, are acute. There is a lockout and approximately 200,000 men affiliated with the building trades are unemployed. This disturbance is not confined to Berlin alone, but extends to nearby cities. Despite numerous high-class tenements in Berlin, rents are exorbitant, and the city is suffering for the want of proper housing. Rents of average workmen in Germany amount to about 40% of the total income, compared with 25%, the usual proportion, in America. The lockout is warmly supported by the General Employer's Association, which includes representatives of most of the industries in Germany. This Association has already appropriated a large sum to maintain the lockout. On the other hand, German trade unions are supporting the men, and with a membership of 1,500,000, a reserve fund of nearly $4,000,000 and an annual income of $1,500,000, will supply the workmen with sufficient funds to carry on the warfare a long time.

THE CONSOLIDATION of the Massachusetts Chemical Co., the Walpole Varnish Works, the Walpole Shoe Supply Works, all of Walpole, Mass.; the Valveless Innertube Co., of New York City, and the Walpole Rubber Co., of Granby, Quebec, is an event of considerable interest to the manufacturing world. The new company formed by the consolidation will be known as the Walpole Rubber Co., and the entire property will be managed by practically the same men who have been operating the Massachusetts Chemical Co. The factories are located in Walpole and Boston, Mass., and in Granby, Quebec, with branches in New York, Chicago, and London. The new company will control the Gleason Fusible Core Process and other valuable patents of Mr. F. J. Gleason, Second Vice-President. This process embodies the molding of the rubber over a metallic core having such a low melting point that, after vulcanizing the rubber, the metal may be melted and poured out through a small opening. The result is an absolutely seamless product. This process is used extensively in making seamless automobile tires, bulbs for automobile horns, life preservers, gas retainers and other rubber articles.

THE ALLIS-CHALMERS CO., Milwaukee, Wis., reports the following recent business: The Omaha & Council Bluffs Street Ry. Co. has placed an order for a 3,750-KW., 3-phase, 25-cycle, 13,200-volt steam turbo generator, to take care of the increasing business. The Toledo Ry. & Light Co. has ordered a 6,400-K.V.A., 3-phase, 25-cycle, 4,000-volt steam turbo generator, to operate in parallel with four Allis-Chalmers engine and two Curtis turbines that form the present equipment of the plant. John Hanbury, of Vancouver, B. C., has given the contract for the entire equipment (including saw-mill and power machinery) for a new lumber mill which will be of the modern Pacific Coast type and equipped throughout with electric drive. The old Ohio Canal is now serving a purpose never intended by its builders. Power sites are being developed along its banks and feeders, and the latest of these is one at Roscoe controlled by the Coshocton Heat & Light Co. This company is largely increasing its power equipment and has installed a 750-KW. steam turbo generator in its Coshocton power-house. Now it has placed an order for a 1,600-HP. twin horizontal open flume hydraulic turbine direct-connected to a 1,000-K.V.A., 4,000-volt, 3-phase, 60-cycle alternator. The turbine is designed to operate under a head of 32 ft. A 30-KW., 120-volt exciter will be belted to the turbine shaft.

TRADE PUBLICATIONS.

COAL AND ASH HANDLING PLANTS.—Guarantee Construction Co., 140 Cedar St., New York. Paper; 6 × 9 ins.; pp. 31; illustrated.

This catalog is much in the nature of a monograph on the handling and storage of coal and ashes at industrial plants. Special reference is made, of course, to installations of various kinds of apparatus which this company has made.

ROAD OIL.—Standard Oil Co., Road Oil Dept., 26 Broadway, New York. Paper; 7 × 10 ins.; pp. 40; illustrated.

The development in the use of heavy mineral oils as road coverings within the past few years has been so great that a large industry has grown up in the production of these materials. The Standard Oil Co. has a special department devoted entirely to the production of such oil and a study of the best methods of applying it. The catalog noted above contains a number of illustrations of roads treated with their various oils, and also specifications and descriptions of the methods to be used in applying these oils.

AIR BRAKES.—National Brake & Electric Co., Milwaukee, Wis. Bulletin 338. Paper; 7 × 10 ins.; pp. 14; illustrated.

The types of motorman's valves for air-brake systems on electric cars are described in this bulletin. The construction of each valve is shown by cross-section drawings and photographs of the different parts ready to be assembled.

WATERPROOFING COMPOUND.—Hercules Waterproofing Cement Co., 255 Washington St., Buffalo, N. Y. Circular. Paper; 3¼ × 6 ins.; pp. 24.

Devoted to a description of the uses of Hercules Strengthening and Waterproofing Compound. The results of numerous tests are given which show that the tensile strength of 1 to 3 mortar was 344 lbs. for seven days and 513 lbs. for 28 days. Where 2% of this compound was added to the cement the average tensile strength was 462 lbs. for seven days and 574 lbs. for 28 days. This compound can be used either to waterproof the concrete or mixed with cement and water, 2% compound to the cement, can be applied as a wash coat.

When used as a wash coat a larger proportion is sometimes added, 4 or 5%, and it then gives a smooth, white surface to the wall applied.

TAR MACADAM ROADS.—Port Huron Engine & Thresher Co., Port Huron, Mich. Paper; 9 × 12 ins.; pp. 32; illustrated.

By means of reprints of newspaper articles and of testimonials, this pamphlet sets forth what its publishers term "the Port Huron System of Constructing Good Roads." The "system" includes a quarrying and crushing plant, traction-engine drawn stone spreaders with very wide wheels of different gage, steam rollers, tar kettles, etc. Either tar or asphalt is used for a binder, and it appears from the printed matter that the binder is applied by the penetration method. Roads are described as having been built between the Michigan State Capitol and the Agricultural College near Lansing; also in DeKalb County, Ga.

CONCRETE MIXING PLANTS.—The T. L. Smith Co., Chicago and Milwaukee. Pp. 23; 10 × 7 ins.; illustrated.

In the larger contracting works, where concrete is used to any considerable extent, the economic, and sometimes the engineering, success of the work is largely involved with the plant for producing the concrete. Of late, the design of such plants has assumed, on some contracts, a rather formidable aspect, so that any data on older successful plants are of great value. Such designs make up the pamphlet noted above. Twenty different plants are shown, covering different phases of construction, some one of which should surely help the contractor in his design.

DUMP CARS.—Continental Car & Equipment Co., 45 East 17th St., New York City. Catalog 31 M. Board; 9 x 6 ins.; pp. 22; illustrated.

Dump cars of from 1½ to 12-yd. capacity are illustrated in this catalog in upright and dumping positions. Both wooden and all-steel cars are shown, with hopper bottom and two-way side dump.

ELECTRIC POWER APPARATUS.—Fort Wayne Electric Works, Fort Wayne, Ind. Bulletins 1118 and 1119. Paper; 8 x 10½ ins.; pp. 12 and 4; illustrated.

The first bulletin mentioned describes what this company terms its "Type A" transformer. This is an oil-cooled type with a silicon-steel core and the usual recognized standard features. The bulletin describes the mechanical and electrical construction and characteristics in a general way. Tables of connections and dimensions are given.

The second bulletin describes a line of direct-current motors (Type B), embracing 15 frames to afford a wide range of ratings of constant and variable-speed service. The field frame is of soft-cast steel with bolted pole pieces and mummified field coils. The bulletin very briefly states the principal features.

ELECTRIC POWER APPARATUS.—General Electric Co., Schenectady, N. Y. Miscellaneous bulletins. Paper; 8 x 11 ins.; illustrated.

Bulletin 4723 describes a line of rotary converters for use with electric lighting and industrial power plants, where a variable ratio between alternating and direct-current voltages is desired. These converters are given the name of "regulating-pole" converters, but they are essentially what has come to be spoken of as the "split-pole" type. In such machines the field structure is divided into two parts, a main pole and a regulating pole. The ratio between the voltages on the direct-current and alternating-current sides is varied by varying the excitation of the auxiliary pole.

In Bulletin 3919 the facilities of this company at their Pittsfield, Mass., works for manufacturing transformers are described. The bulletin also illustrates the various processes and steps of transformer manufacture.

In Bulletin 4722 are many illustrations of the application of electric motors to Portland cement manufacturing plants, with a few hints to manufacturers as to the best ways of so driving rock crushers, ball mills, rotary kilns, conveyors, etc.

For other Proposal Advertisements see pages 51, 52, 53, 54, 56, of Advertisements and Construction News page 192.

MACADAM ROAD.

Montvale, N. J.

Sealed proposals will be received by the Mayor and Council of the Borough of Montvale, Bergen Co., New Jersey, at 9.00 P. M., on the 28th day of May, 1910, at Linderman's Hall, Montvale, N. J., for the grading and macadamizing a portion of Magnolia Avenue, a distance of 0.904 miles.

Plans and specifications can be examined at the office of the State Commissioner of Public Roads, State House, Trenton, N. J., and at the office of H. G. Hering, Jr., Borough Engineer, Hillsdale, N. J.

Each bid must be accompanied by a certified check in the sum of $1,000.00 as a guarantee of good faith on the part of the bidders.

The Mayor and Council reserve the right to reject any or all bids.

Proposals must be sealed and endorsed "Proposal for grading and macadamizing Magnolia Avenue."

FRED. C. LINDERMAN,
Mayor of the Borough of Montvale.

Attest:
JOHN B. HERING,
Borough Clerk.

CENTRAL HEAT, LIGHT AND POWER PLANT.

UNIVERSITY OF TORONTO.
Toronto, Canada.

Tenders will be received, in triplicate, up to noon, Saturday, May 21st, 1910, for furnishing and installing all heating and electrical apparatus, constructing tunnels, etc., required for the Central Heat, Light and Power plant. Plans and specifications for the entire work may be seen at the office of the Consulting Engineers, GRIGGS AND HOLBROOK, 8 South William St., New York City.

ROAD WORK.

Trunk Line Rockland to Rockport, Me.

Sealed proposals for building a section of state road about five and four-tenths miles in length in the city of Rockland and the town of Rockport will be received by the State Commissioner of Highways at Augustus, Maine, 2 o'clock P. M., May 24, 1910, at which time and place they will be publicly opened and read.

Plans may be seen, specifications, forms of contract and proposal blanks may be obtained at the office of the State Commissioner of Highways, State House, Augusta, Maine, and no proposal will be considered unless made on said proposal blank.

Each bidder must accompany his bid with a certified check payable to Paul D. Sargent, State Commissioner of Highways, for 10 per cent. of the amount of the bid.

The successful bidder will be required to furnish a bond as provided by the state road law.

The right is reserved to reject any and all bids.

Proposals should be endorsed Rockland to Rockport Trunk Line and addressed to

PAUL D. SARGENT,
State Commissioner of Highways,
Augusta, Maine.

ROAD WORK.

Somerville, N. J.

The Board of Chosen Freeholders of the County of Somerset, New Jersey, will meet at the Court House in Somerville, N. J., in said county, on Thursday, May 26, 1910 at 10.00 o'clock A. M., and up to 10.30 o'clock of said day will receive, and after the latter hour, publicly open and read, bids for grading and macadamizing seven (7) roads in said county, aggregating 15 18/100 miles in length.

Bids for each road must be accompanied by a certified check for $1,000.00, payable to the order of Thomas E. Gibson, Director.

The contracts will be awarded subject to the approval of the State Commissioner of Public Roads.

Plans, profiles and specifications may be seen and bidding and detail sheets obtained at the office of the State Commissioner of Public Roads, State House, Trenton, N. J., and at the office of Joshua Doughty, Jr., Engineer, 22 Elm Avenue, Somerville, N. J.

By order of the Board of Chosen Freeholders of Somerset County.

THOMAS E. GIBSON,
Director.

Somerville, N. J.

MACADAM ROAD.

Montvale, N. J.

Sealed proposals will be received by the Mayor and Council of the Borough of Montvale, Bergen Co., New Jersey, at 9.30 P. M., on the 28th day of May, 1910, at Linderman's Hall, Montvale, N. J., for the grading and macadamizing Summit Avenue, a distance of 4,100 feet.

Plans and specifications may be examined at the office of H. G. Hering, Jr., Borough Engineer, Hillsdale, N. J.

Each bid must be accompanied by a certified check in the sum of 10% of the amount bid as a guarantee of good faith on the part of the bidders.

Proposals must be sealed and endorsed "Proposal for grading and macadamizing Summit Avenue."

FRED. C. LINDERMAN,
Mayor of the Borough of Montvale.

Attest:
JOHN B. HERING,
Borough Clerk.

CONTRACTORS AND QUARRYMEN.

Proposals are invited for stripping quarry and delivery of Trap Rock to crusher from our quarries at Birdsboro, Pa., with the use of steam-shovels, locomotives, cars, tracks, and competent men on the ground, if desired by bidder. Responsible bidders only need apply.

Full information and permit to visit quarry for inspection may be obtained only from the undersigned.

BIRDSBORO STONE CO.,
W. Oliver Craig, Vice-Pres't & Gen'l Mgr.
614 Bulletin Building, Philadelphia.

SEWERS.

Hackensack, New Jersey.

Sealed proposals will be received by the Hackensack Improvement Commission at the Commission Rooms, 193 Union Street, Hackensack, on Friday, May 20th, 1910, at 8 o'clock P. M., for the construction of Sewers in Central and Railroad Avenues, consisting of about

670 feet 24-inch Pipe Sewer.
738 feet 21-inch Pipe Sewer.
485 feet 18-inch Pipe Sewer.
430 feet 8, 10 and 12-inch Pipe Sewer, together with manholes, catch-basins and other appurtenances.

Also, for a pipe sewer in Old Hoboken Road and Jackson Avenue, consisting of about

1,000 feet 18-inch Pipe Sewer, together with manholes, catch-basins and other appurtenances.

Plans and specifications can be seen and blank forms of proposals obtained at the office of the Hackensack Improvement Commission, 193 Union Street, and at the office of Lemuel Lozier, Engineer, Bank Building, Main and Mercer Streets, Hackensack.

All proposals must be made upon the blank forms furnished.

A certified check for the sum of Five Hundred Dollars ($500.00) drawn to the order of the Hackensack Improvement Commission must accompany each proposal offered for the construction of the sewer in Central and Railroad Avenues as surety that contract will be entered into if proposal is accepted.

Also, a certified check for the sum of Two Hundred and Fifty Dollars ($250.00) must accompany each proposal for the construction of the Old Hoboken Road and Jackson Avenue Sewer. A Surety Company bond equal to 50% of the amount of the contract will be required in each contract.

The Hackensack Improvement Commission reserves the right to reject any or all bids.

HENRY B. STAGG,
President.

JACOB BAUER,
Secretary.

SEWERS AND GRADING.

Summit, N. J.

Sealed proposals will be received by the Executors of the W. H. Risk Estate at the City Hall, Summit, N. J., until 8 P. M., May 12th, 1910, for the construction of 3,035 lineal feet of 6, 8 and 10-inch vitrified pipe sanitary sewers, and 2,395 lineal feet of 8, 10, 12 and 15-inch storm sewers, in the following location, Beacon Road, Fernwood Road and along a proposed New Road, also a right of way line, and manholes, excavations, etc., necessary to same.

Also the grading of a proposed new Drive, 1,000 feet long.

The plans and specifications of the work can be examined at the office of John S. Stiger, C. E., Summit, N. J.

The contract to be completed within 90 working days from date of beginning work.

Said proposals must be accompanied by a certified check or cash for five (5) per cent. of the total amount of bid. If certified check is furnished it shall be made payable to J. Boyd Risk.

Surety Bonds of Five Thousand Dollars ($5,000) will be required of the successful bidder.

By direction of the Executors of the William H. Risk Estate.

JOHN S. STIGER,
Civil Engineer.

MACADAM ROAD.

Montvale, N. J.

Sealed proposals will be received by the Mayor and Council of the Borough of Montvale, Bergen Co., New Jersey, at 8.30 P. M., the 28th day of May, 1910, at Linderman's Hall, Montvale, N. J., for the grading and macadamizing of Grand Avenue, Middletown Road, and Blue Hill Road, a total distance of 1.301 miles.

Plans and specifications can be examined at the office of the State Commissioner of Public Roads, State House, Trenton, N. J., and at the office of H. G. Hering, Jr., Borough Engineer, Hillsdale, N. J.

Each bid must be accompanied by a certified check in the sum of $1,000.00 as a guarantee of good faith on the part of the bidders.

The Mayor and Council reserve the right to reject any or all bids.

Proposals must be sealed and endorsed "Proposal for grading and macadamizing Grand Avenue, Middletown Road and Blue Hill."

FRED. C. LINDERMAN,
Mayor of the Borough of Montvale.

Attest:
JOHN B. HERING,
Borough Clerk.

BRIDGE.

Winnipeg, Man.

Sealed tenders addressed to the Chairman Board of Control, Winnipeg, and marked on the envelope "Tender for Brown and Brant Street Bridge," will be received at the office of the undersigned up to 11 o'clock A. M., on THURSDAY, JUNE 28th, 1910, for the following works:

(a) Construction of Concrete Piers to be completed on or before the fifteenth day of November, 1910.

(b) Erection of Steel Superstructure and floors, with two lines of Street Railway tracks, to be completed on or before the first day of June, 1911.

Plans, specifications and forms of tender, together with conditions governing tenders as prescribed by by-law, may be obtained at the office of the City Engineer, Winnipeg. The lowest or any tender not necessarily accepted.

M. PETERSON,
Secretary

Office of the Board of Control,
Winnipeg, April 30th, 1910.

FORT MEADE, S. D., May 2d, 1910.—Sealed proposals, in triplicate, will be received here until 10 A. M., Mountain Time, June 1st, 1910, for constructing Concrete Dam and clearing reservoir site, in connection with Fort Meade, S. D., water system. Plans and specifications may be seen at offices of Chief Quartermaster, Dept. of the Missouri, Omaha, Nebr.; Dept. of the Colorado, Denver, Colo.; Dept. of the Lakes, Chicago, Ill.; Dept. of Dakota, St. Paul, Minn., and this office, at which latter place all information may be obtained on application. A deposit of $10.00, to insure return, is required before plans are sent on individual application. Envelopes containing proposals should be endorsed "Proposals for Dam" and addressed to Constructing Quartermaster.

PROPOSALS FOR CONSTRUCTION OF AN ICE PLANT.—Constructing Quartermaster's Office, Whipple Barracks, Arizona, April 30, 1910.—Sealed proposals, in triplicate, will be received here until 3.00 P. M., May 31, 1910, and then opened, for furnishing labor and material required for the construction of an Ice Plant at Whipple Barracks, Arizona. Blanks and further information upon application here. The U. S. reserves the right to accept or reject any or all proposals. 2ND LIEUT G. G. BARTLETT, 18th Infantry, Constructing Quartermaster.

Situations Wanted

HYDROELECTRIC ENGINEER, now employed, open for engagement, May 15th. 10 years' experience power plant work. Address E. B. 18, Engineering News, New York. 18-1t

Situations Open

WANTED—Several detailers and checkers on structural steel work. Apply HAY FOUNDRY & IRON WORKS, Newark, N. J. 18-2t

WANTED—A young, experienced mechanical draftsman. Address F. B. 18, Engineering News, New York. 18-3t

DRAFTSMEN wanted on general building, structural steel, bins, elevator conveying machinery, etc. Only replies giving experience and full details will be considered. State also age, education, salary, references and when able to report. Address Post Office Box 616, Niagara Falls, N. Y. 18-2t

Miscellaneous Wants

WANTED.—Additional capital for a new structural steel shop in New York district. An advantageous interest will be given to an experienced engineer or good contracting firm. Address J. B. 18, Engineering News, New York. 18-1t

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